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ELEMENTS OF CIVICS

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ELEMENTS OF CIVICS

BY

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INTRODUCTION

The word 'Civics' in its primary sense denotes the art of citizenship. It is derived from the Latin word 'civitas', which meant originally a city state, and hence in derivation it is akin to the word 'Politics' which is derived from the Greek word for city state, viz. 'polis'. The world has moved on since the days when men first spoke of the civitas or polis: the city state has given place to the country state and to the grouping of country states together in a Federation or Empire: there are even signs of the coming of a world state. The scope of citizenship has, therefore, been greatly extended. 'Civics' today, in its primary sense, is a study of the duties and rights of men in respect of all the political communities of which they are members, both the lesser and the greater.

In this present book, however, the word 'Civics' is used in a secondary sense. In its primary sense 'Civics' is equivalent to applied politics and is thus a branch of politics. In its secondary sense it is a name given to elementary economics and politics. The connection between the two senses of the word is very clear. The study of practical citizenship can be divorced neither from a slight study of the history and form of the State nor from consideration of its ideal aims and purposes. But the State must have a material foundation of wealth and today questions of economics are so intertwined with applied politics that some knowledge of economics is essential for the proper fulfilment by a citizen of his duties. In this present book, therefore, the word 'Civics' is used to denote elementary economics and politics, with emphasis on those portions of either which specially affect the duties and rights of the citizen. The first volume of this book deals with elementary economics.

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PART I

GENERAL ECONOMICS

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CHAPTER I

ECONOMICS AND WEALTH

Definition and Scope of Economics

'Political Economy' or 'Economics' is primarily a study of man's actions for the satisfaction of his wants, mainly material. That man has wants and that he must work for the satisfaction of those wants needs no explanations. Almost every one of us is more or less acquainted with these familiar facts of human life. Yet very few of us indeed can be said to have clear ideas about these facts, because the problems of our daily life are not so simple as they appear at first sight. That every man requires food, drink, clothing and shelter, is clear enough, and it is no less clear that he gets them because otherwise he would die. At the same time it is also clear that in a modern society he himself does not produce even a tithe of what he requires. How then are his wants satisfied? This is the miracle which economics seeks to describe and explain. It is concerned with man's wants and the various activities that lead to their satisfaction. Man's wants therefore afford the starting point of our study in economics, and his efforts which ultimately lead to the satisfaction of these wants constitute the problems which form the subject-matter of that study.

Although economics deals with man's activities for the satisfaction of his wants, yet there are certain exceptions. The first of these relates to the activities of a man living in isolation from his fellows. A man living in exile, or in solitude or on an uninhabited island (e.g. Robinson Crusoe) has, no doubt, to labour just as hard as any individual member of society to provide himself with food, drink and shelter. Yet economics is not concerned with his activities. Because economics is a social science, that is, it deals with those actions of man in which he is concerned with other members of the society.

In the second place, there are in every family various forms of services rendered by one member to another, notably by women and children. These services, though they aim at the satisfaction of wants, are yet excluded from the scope of economics, as they are done not for any reward or payment but out of love and affection.

The Economic Life

The economic life of man consists of wants, the efforts that these wants call forth and the satisfaction of wants which comes through these efforts. The connection between these, however, is by no means clear under modern conditions. Because in the modern world men live mostly by co-operating with their fellow men and that co-operation is as wide as it is complex. But the economic life of man was not so complex in earliest times. Rather it was too simple: and it was with the efflux of time that society lost its earlier simplicity for its modern complexity. There was a time when every one produced just what he required for the satisfaction of his own wants; and though this may still hold good, to a great extent, of the primitive peoples in certain parts of the world, it is safe to assert that in an advanced country like England or the United States of America not one in a thousand provides himself directly with all that he requires. Penson emphasizes that there have been four distinct stages in the development of man's economic life. Divisions of this sort are necessarily somewhat arbitrary; for (*a*) there must have been considerable overlapping, (*b*) man's economic evolution cannot have been perfectly uniform in all parts of the world. None-the-less Penson's scheme of four stages is valuable as a rough generalization and so we may adopt it.

The Development of Economic Life

STAGE I. DIRECT EFFORT

In the most primitive stage man has very few wants, such as those of food, drink, shelter, etc. He himself produces everything that he requires for the satisfaction of these wants. He kills an animal or bird, or catches some fish to satisfy his hunger; he makes a vessel for drinking water and builds a hut to take shelter under it. This is the stage of 'direct satisfaction' of wants, that is to say, the stage when man satisfies his wants directly by his own efforts.

STAGE II. INDIRECT EFFORT

In course of time, however, man begins to realize the advantages of every one procuring or making one thing only. So instead of himself procuring flesh, making drinking vessels and building huts, every one now directs his efforts to the production of one only of those things. One keeps to hunting, another to making drinking vessels, still another to hut-building and so on. Thus the 'Division of Labour' is introduced. But if every one is to make or procure one thing only, how is he to satisfy his wants for other things? How does the hunter, for example, get a drinking vessel or a hut neither of which he himself makes? This difficulty is got over by means of what is known as 'Barter' or 'Exchange' of one man's product for another's. Thus man's economic life becomes somewhat complex because man no longer satisfies all his wants directly by his own efforts but through those of other men. This, therefore, is the stage of 'indirect satisfaction' of want.

STAGE III. COMBINED EFFORT

The Division of Labour is carried a step further when man begins to learn to combine his efforts with that of others for the production of a thing. In the second stage the hut-builder builds the complete hut himself. He himself collects the materials, shapes them, and does the construction. But in the third stage more than one man takes part in building a hut. One collects the materials, another shapes them, and a third does the construction. In other words, they combine their efforts or 'co-operate' with one another for making a hut. But to which of them does the hut belong? Or, if, as is probable, the hut is exchanged for, let us say, meat, to whom does that meat belong? It belongs to all of them, undoubtedly. But before they can partake of it and thereby satisfy their wants, each man's share in the joint property must be determined. This is the complicated process known in economics as 'Distribution'. Man's economic life becomes more complex at this stage. The gap between effort and satisfaction is wider, and the way in which a man's wants are satisfied is more indirect involving, as it does, distribution over and above exchange.

STAGE IV. THE USE OF MONEY

With the introduction of 'Money' primarily to replace barter, economics has come to acquire a far more complex but distinctive character. The gap between effort and satisfaction has become wider still and exchange, henceforward, is carried on in the form of 'sale and purchase'. As very few of man's wants are satisfied directly, his effort first of all results in what is called 'money income'. He then spends that income on goods which really satisfy his wants. Income, in the form of money, thus becomes the central fact of man's economic life. But income is the result of effort and hence the satisfaction derived by the spending of income is limited by the character and duration of that effort.

Thus in course of its development, man's economic life becomes more and more complex and the relation between effort and satisfaction becomes less and less discernible. Nevertheless, the relation is still there and we are to find it out in the course of our study of economics involving, as it does, the problems not only of 'production' and 'consumption' but those of 'exchange' and 'distribution' as well.

Definition of Wealth

In the popular sense the term 'wealth' is associated with money, sometimes with gold and silver. But this meaning is obviously inexact because there was wealth long before gold and silver or even money had come into use. The true meaning of the term, therefore, seems to lie deeper than what is ordinarily thought of.

Originally 'wealth' is synonymous with well-being and implies the possession of an abundance of those things which satisfy the numerous wants of man. The first characteristic of 'wealth' therefore is that it must have the power of satisfying wants or, in other words, it must possess utility. If a thing is of no use, it is no good at all. It should be noted however that from the point of view of economics the idea of plenty or abundance is not at all essential inasmuch as both the rich and the poor must have wealth or things to satisfy their wants. Hence in the economic sense there is no contrast between 'wealth' and 'poverty' such as that which is suggested in ordinary speech.

In the second place, 'wealth' implies a limitation of supply. 'Scarcity', as Taussig points out, 'is the earmark of an economic good—scarcity, that is, relatively to the demand'. Air, for example, in ordinary circumstances or water in certain places is available in unlimited quantities, without any effort on the part of man. So they are not regarded as 'wealth' or 'economic goods' but as 'free goods'. They are however regarded as 'wealth' in localities where they are not freely available because effort has then to be applied to procure them.

In the third place, 'wealth' must be capable of being appropriated to man's use. The rays of the Sun, for example, possess utility but these can scarcely be regarded as 'wealth' as man cannot appropriate them to use at his convenience.

In the fourth place, 'wealth' must be something external to man so that he may part with it. Health, strength, vigour and other personal qualities—both physical and mental—are therefore outside the category of wealth since it is not possible to part with them. These qualities are, no doubt, essential for the production of wealth, still they are themselves not 'wealth' but mere means to wealth.

In order to constitute wealth therefore a thing, as Seligman observes, must possess four qualities. It must possess utility; it must be limited in supply and must ordinarily present the problems of effort; it must be appropriable; and it must be something external to man.

Is there Non-material Wealth?

Ordinarily wealth is regarded as something that can be kept and accumulated. It is supposed to include only tangible or material things, such as food, drink, clothing, houses, etc. Even economists like Adam Smith and his followers regarded wealth in this sense. This however is not wholly consistent with our view. Because utilities may be conferred not only by tangible things but also by intangible things or things having no objective existence. The services of a teacher, or of a musician or of a physician, for example, are as useful to us as food, clothing, etc., and since they possess the other qualities of wealth they must be regarded as wealth. So there may be non-material just as there may be material wealth.

Is Economics the Science of Wealth?

In economics we study those activities of man which relate to the satisfaction of wants. As the satisfaction of human wants comes mainly from wealth man's economic efforts are directed to its production. Wealth, then, occupies a very important place in our study of economics and so economics has sometimes been defined as the Science of Wealth. The inexactness of this definition will, however, become at once clear when we remember that wealth results from man's activities and that it is used merely as a means for the satisfaction of human wants. Wealth plays a prominent part, no doubt, but the part it plays is evidently subordinate to man and his activities. Economics, therefore, is primarily concerned with man and his activities in relation to wants and only secondarily with wealth as the means of satisfying those wants. Thus, 'it is', as Marshall says, 'on the one side a study of wealth and on the other and more important side, a part of the study of man'.

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CHAPTER II

PRODUCTION

Meaning of Production

Production has a meaning in economics more precise than its meaning in ordinary language. Ordinarily we speak of a carpenter producing a table, or of a cobbler producing shoes. No doubt, the carpenter makes the table but he makes it out of wood which he does not create ; so also the cobbler makes the shoes with hides of animals which he, too, does not create. What then do they really produce? The wood or the hide, in its original state, cannot serve the purpose of a table or of a pair of shoes. It is the carpenter who gives the wood its necessary shape as it is the cobbler who gives the hide its proper form. So it is evident that although man cannot create matter he can change its forms and combinations. He can put matter in a way in which it can satisfy his wants, or as in the case of growing raw materials he arranges conditions favourable to their growth. What man really produces is, therefore, 'utility' or power to satisfy wants.

Utilities or want-satisfying powers may arise in more than one way: not only are materials shaped and reshaped, but they are also sent from one place to another where they reach the hands of those whose wants they finally satisfy ; or they are stored up for satisfying wants in future. At every stage further utilities are added and so every one connected with one or other of these stages is a producer. Thus the shoemaker who shapes the hides into shoes is a producer of what is called 'form utility', i.e. utility that is produced by a change in form ; the man who takes part in bringing the shoes from the factory to a shop is a producer of what is called 'place utility' or utility that arises from being sent from one place to another ; finally the shop-keeper who stores up the shoes for the present when they are not much wanted for selling at a time when the demand will increase—is a producer of what is known as 'time utility', i.e. utility that is brought about by the lapse of time.

Thus understood 'production' covers a much wider field than is ordinarily thought of. It covers all the efforts from the growing of the raw materials right up to the delivery of the finished products in the hands of those whose wants they finally satisfy. So it includes the activities of all, whether labourers, capitalists or landowners, who in any way help in bringing about the satisfaction of man's wants.

Is there Unproductive Labour?

There has been a great difference of opinion amongst economists as to the relation of labour to production. The earlier English economists held the labour of only those who turn out or contribute to the production of material things as productive and the labour of all others as unproductive. Their view is the logical outcome of their conception of wealth. As wealth in their opinion consists only of material goods, so only such labour as turns out material goods is productive, everything else being unproductive labour. This definition however leads to confusing results. The labour of a musician, e.g. is according to this view unproductive as he does not produce material goods, but the labour of a man who makes musical instruments is, nevertheless, productive as it results in material things. The distinction, however, between these two kinds of labour is hardly tenable, because the only purpose that a musical instrument can serve is to be used by a musician.

This difficulty will disappear if we stick to the true meaning of production, i.e. the creation of utilities or want-satisfying powers. Looked at from this point of view, all labour that results in utilities is productive. The musician whose song gives us pleasure creates utilities just as the artisan who makes musical instruments. The labour of the former who produces immaterial goods is as productive as that of the latter who produces material goods. All labour, therefore, that results in utilities in the form of either material or non-material goods is 'productive' labour.

It is 'unproductive' only when it fails of its purpose and does not lead to the creation of utility. Thus when a man wants, let us say, 'ghee' but is given some 'vegetable product' his want is not satisfied and consequently the labour of the man who supplies his want is unproductive labour as it does not produce any utility. Similarly the exertion of thieves and beggars although it may occasionally be of an exacting kind is not productive labour because 'they simply try to get things away from others' and do not create any utility themselves.

The Factors of Production

Though the satisfaction of human wants comes through efforts, yet the efforts by themselves are not sufficient for the purpose. In the primitive stage of society man lives on flesh but he cannot satisfy his hunger merely by the application of his physical strength or skill. There must be some animal so that he may kill it and he must have some weapons, say, a bow and arrow, with which to kill the animal. Thus it is evident that three things are necessary so that his effort may have the desired result. What is true of the savage is also true of the farmer or of the industrialist. As in the most primitive stage so in the more advanced stages of his economic life man therefore requires these three things in nearly every case so that his effort may be productive.

(1) There must be some gifts of nature—either objects or forces—spoken of collectively as 'Land'.

(2) There must be the application of some efforts—physical or mental—or 'Labour'.

(3) There must be some tools, implements and materials or, in other words, 'Capital'.

These three—Land, Labour and Capital—are variously called as Factors of Production or Agents of Production or Requirements of Productive Effort.

The three factors spoken of above are, as we have seen, essential in every stage of man's economic life. But as it begins to be more and more complex with the introduction of division of labour and co-operation, 'Organization' emerges as a new factor of production. Organization consists in co-ordinating the activities of the numerous groups engaged in production according to a well-devised plan.

Further, owing to the improvement in communications and the opening up of new territories markets nowadays are wider than before. People in one corner of the earth produce goods to satisfy the wants of those in the other. Modern business therefore involves a considerable amount of risk and uncertainty and unless someone is ready to take that risk business would soon come to a standstill. Hence 'risk-taking' or 'enterprise' is regarded as the fifth factor of production.

Of these factors labour, organization and enterprise are but different forms of man's activity, while land and capital are external agents. As capital itself is a result of past labour and land, some writers hold that there are only two primary factors, viz. land and labour, the others being only secondary. But this distinction is of very little practical significance since the co-operation of every one of the factors is as indispensable as that of any other for the purposes of production.

Relative Importance of the Factors

There is no doubt that each of these five factors has a part to play in the creation of wealth. But it is difficult to assess the relative value of their contribution. Hence different opinions are expressed as to the relative importance of these factors. One thing however is evident that none of these factors can be said to have the same predominant part to play through all the different stages of man's economic life or in the production of all things. For the production of agricultural products, say, wheat and cotton, land is an essential element but it is less important in the production of biscuit and cloth. Labour may have a very important part to play in the semi-mediæval conditions of agriculture in an old country like India; but it is certainly less important than capital in countries like Canada and the U.S.A. where agricultural operations are conducted with the help of machinery. Capital is, no doubt, very important in modern manufacturing industries but in view of the complex and risky nature of modern business, organization and even enterprise may be regarded as scarcely less important.

CHAPTER III

LAND

Land

The term 'land' is used by economists so as to include not only land in its literal sense but all those objects and forces, also, which nature supplies freely for man's aid. It includes objects like land, as it is commonly used, water, air, minerals, vegetables, animals, etc., and forces such as light, heat, electricity, etc. Of all these however land is evidently the most important, because the right to use a certain area of the earth's surface 'is', as Marshall says, 'a preliminary condition of anything that man can do'. Earth has aptly been called the 'mother of us all'. It is because of its importance that the term 'land' has been extended so as to include all the gifts of nature.

Special Characteristics of Land

Land, though originally a free gift of nature, is however for the most part privately owned in all modern communities. It can be bought and sold like any other piece of private property and also acquired by inheritance. Nevertheless, it possesses certain peculiarities whereby it can be easily distinguished from commodities made by man. We may consider these peculiarities under three heads:

I. LIMITATION OF SUPPLY

In the first place, the supply of land is, broadly speaking, fixed. It cannot be increased or decreased like commodities produced by man. Because of its scarcity land as a factor of production is distinguished from labour and capital. Whereas the supply of labour and capital responds to their demand, that of land does not do so. This gives rise to the problem of population.

II. REMARKABLE DIFFERENCE IN QUALITY

Secondly, land varies in its quality from piece to piece to a degree which is not possible in the case of man-made things.

A commodity may, and actually does, vary in its quality but it will never be so poor as to be entirely valueless. But in the case of land we find that there are enormous tracts which can be turned to no useful purpose and are therefore valueless. This difference in quality gives rise to conceptions of margin and of rent in the case of land.

Conditions of Productivity of Land

It may be mentioned here that the productivity of land does not depend solely on its natural quality. Situation is, also, a factor of great importance. Further, the productivity of land depends to a great extent on the way in which labour and capital are applied to it. The productive efficiency of land will, therefore, depend on these three sets of conditions which may be described as (*a*) the natural, (*b*) the social, and (*c*) the economic.

(*a*) The natural conditions refer to the original and inherent properties which land owes to nature. They include all the properties both above and below the surface such as fertility, light, heat, air, moisture, etc.

(*b*) The social conditions refer to the geographical situation of land. Land provides us with space for all kinds of productive activity but the value of the space depends considerably on its geographical position. So far as land in cities or towns is concerned, 'situation' is the only thing that counts. But even in the case of agricultural land situation is an essential factor. A farm which is so situated as to cause enormous expenses in getting its produce to the market is, on the whole, less valuable than one which is better situated though less fertile.

(*c*) The economic conditions refer to those properties of land which are due to man's actions. The natural properties of land, both above and below the surface, can be considerably modified by the application of labour and capital. It can be drained if it is marshy, irrigated if it is dry, and its deficiencies can be supplemented by the application of manures. Man can even change the climate by planting trees or cutting them down. In fact, 'human agency can do much more', as Marshall points out, 'to promote the growth of some crops than others'.

There is however a limit to the application of additional doses of labour and capital to any particular piece of land because sooner or later a stage is reached when the application of extra labour and capital is followed by a return less than proportionate to the cost. We are thus led to a consideration of the law of 'Diminishing Return' which may be regarded as the third characteristic feature of land.

III. OPERATION OF THE LAW OF DIMINISHING RETURN

Of all things 'land' is peculiarly subjected to the operation of the Law of Diminishing Return. Diminishing Return appears where return diminishes in proportion to outlay. Let us take the case of a farmer, who cultivates a piece of land which gives him the highest return. If, at this stage, he applies more labour and capital to it, the total produce will, no doubt, increase ; but it will not increase in proportion to the increased cost on account of extra labour and capital applied. This means that for the same cost the return is now less than before, in other words, that 'diminishing return' has appeared. This tendency has been stated by Marshall in the following words: 'An increase in capital and labour applied in the cultivation of land causes in general a less than proportionate increase in the amount of produce raised'. This is the Law of Diminishing Return.

Suppose a farmer cultivates a farm of 10 bighas. He spends 50 rupees' worth of labour and capital on it and gets a return of 80 maunds of paddy. He then spends an additional 50 rupees' worth of capital and labour on the same plot the next year. This time he gets a total return of 170 maunds, that is, an extra return of 90 maunds—a return evidently greater in proportion to the extra labour and capital employed. This encourages him, and, in the year following, a further dose of labour and capital worth Rs. 50 is applied to the same plot. He now gets a total outturn of 220 maunds. His total return increases but the extra return—that is 50 maunds—is less in proportion to the extra investment. Return therefore is diminishing. Next year, too, he spends another 50 rupees' worth of capital and labour on his old plot and gets a return of 260 maunds of paddy. His total return no doubt increases, but the extra return, that is 40 maunds, is, nevertheless, less in proportion to the additional outlay.

Taking each 50 rupees' worth of labour and capital as one unit or dose the results may be expressed in the form of a table as below.

1st year—

With 1 unit of Labour and Capital 80 mds. of paddy—an average of 80 mds.

2nd year—

With 2 units ,, ,, ,, 170 ,, ,, ,, ,, 85 ,,

3rd year—

With 3 ,, ,, ,, ,, 220 ,, ,, ,, ,, 73⅓ ,,

4th year—

With 4 ,, ,, ,, ,, 260 ,, ,, ,, ,, 65 ,,

Here we see that the total return increases every year with the increase in the amount of capital and labour employed. But a closer examination reveals that whereas the increase in the second year is more in proportion to the extra outlay, in the succeeding years it is less than in proportion. The Law of Diminishing Return has, therefore, come into operation at the third stage.

It may be pointed out that there is no fixed point at which the return begins to diminish. As a matter of fact, diminishing return may appear in the second year of our illustration or return may even be increasing in the third year. Improvements in farming may make the return increase rather than diminish in certain cases but the tendency to diminishing return is thereby only pushed off and is bound to appear ultimately.

CHAPTER IV

LABOUR

Labour

The term 'labour' is generally associated with the work of those who are ordinarily called 'labourers'. In this sense it refers to manual work only. In economics, however, it is used in a wider sense and includes all exertions—whether of the body or of the mind—which is directed to the production of utilities. In this sense, it includes both physical and mental exertion. But as all labour is directed towards the production of utilities, any exertion that is undergone merely for the sake of pleasure—such as that of a football player—is not to be counted as labour.

The importance of labour as an agent of production can scarcely be over-emphasized. We commonly speak of the productivity of land and capital; but land or capital by itself can scarcely produce anything unless labour is applied to it. It is, therefore, evident that the productive efficiency of either land or capital depends largely on the efficiency of labour applied to it.

Efficiency of Labour

Efficiency of labour depends, on the one hand, on an individual's 'health and strength—physical, mental and moral'; and on the other, on the efficiency of the other agents to which it is applied.

Physical strength.—In certain occupations as, for example, agriculture in a country like India, where very little, if anything at all, is done by machinery, the importance of muscular strength is obvious. For other occupations which involve less muscular exertion, or in countries where more strenuous work is being taken over by machinery, physical strength may seem to be of very little importance. But they, too, require energy and vigour in their workers which depend not a little on good physique and sound health.

The physical efficiency of a man is influenced by climatic conditions. A cold climate is supposed to stimulate physical vigour whereas a warm climate is supposed to sap it. The essential condition however is the standard of living of the individual himself and that of his parents. Fresh air, good food, sufficient clothing and adequate shelter—all these make for physical efficiency. Nature of the occupation and conditions in the factory also affect the standard of efficiency. An atmosphere of freedom or an opportunity for advancement, also, increases the power for work in proportion as it lessens the strain of physical exertion.

Mental strength.—Mental strength is as important as physical strength and its importance increases as that of physical strength decreases with the introduction of machinery. This, also, depends, to a certain extent, on the nature of the surroundings and of the occupation. But it depends to a far greater extent on education—general as well as technical. General education even though it may be of an elementary kind is yet essential as it stimulates mental activity. It leaves the mind open to receive new ideas so that further education may go on independently of the school and the college. Technical education is required for occupations which demand skill and dexterity that can be acquired only by set training. The old apprenticeship system has gone out of date partly because of the changed character of modern industry, where, owing to the introduction of machinery, manual dexterity is less in demand than before and partly because of its narrowing influences. Its place is being taken by technical education of a scientific nature so that the special knowledge of a particular occupation may be acquired along with 'artistic skill and knowledge and methods of investigations' which are seldom acquired in the course of apprenticeship.

Moral strength.—This consists of self-control, honesty, strength of character and a certain amount of resoluteness. It is moral strength that prompts a man to discharge his duties faithfully, and makes him a willing worker. The moral awakening in man follows from the working of a number of influences —political, economic, religious, social as well as personal, such as that of the mother in early life.

But labour, though it may be quite efficient, cannot do anything by itself. It requires the aid of both land and capital. Hence the efficiency of labour in production depends on the efficiency of both these agents also. A highly efficient fisherman, for example, cannot be expected to have a good catch if either fish is scarce in the water, or his net is damaged. As organization has come to play a very important part in modern business, the efficiency of labour depends to a great extent on the efficiency with which it is organized by the organizer along with the other factors of production.

CHAPTER V

CAPITAL

Capital as a Factor of Production

The part played by 'labour' in production is obvious enough but less obvious is the part played by 'capital' as an independent factor of production. This explains in part the antagonism between labour and capital. It is quite natural for a manual worker to think that while all the work is done by him, the bulk of the profits earned by his work goes to a man who probably has not even seen a pit or a factory. There are also writers and thinkers who think that all forms of productive activity are ultimately reducible to the two primary factors, viz. land and labour. Capital is thus eliminated and all that goes to it is, therefore, regarded as so much 'robbed' of the due share of labour. Both these views, however, either misunderstand, or overlook, the true nature and function of capital. The function of capital is not merely predatory ; capital is as much indispensable as labour for the purposes of production. To illustrate our point, let us take 100 agricultural labourers and give them 20 bighas of land each in the most fertile tracts, say of the Gangetic Valley, but no capital—no cattle, no ploughs, no seeds and nothing to support them till the harvest is reaped. It is highly improbable that at the end of the year any one of them will have earned even his bare keep, if of course any one happens to have escaped death in the meantime for want of something to live on. If, however, they are provided with sufficient capital, they are likely to raise produce far greater in amount than what has been advanced to them. Capital, therefore, is an independent factor of production, distinct from land and labour, and equally necessary.

Definition of Capital

'Capital' is that part of wealth which has been saved and is devoted to the production of more wealth. 'Capital', therefore, implies both saving and its productive use. Without saving there can be no 'capital'. Take the case of a farmer; he must have some cattle and a plough to cultivate his soil and some seeds to sow months before he can reap the harvest. He must, also, have a few other things to satisfy his immediate wants, in the meantime. He must, therefore, have a store of all these things, or he must borrow them from someone else. In either case, it is evident that someone, whether the farmer himself or his creditor, must wait till the harvest is reaped. This is called 'saving' or the postponement of the present enjoyment of wealth for the future. 'Saving', therefore, is to be distinguished from 'spending' or the utilization of wealth for the immediate satisfaction of wants, such as food, clothing, etc. 'Saving' by itself, however, does not create 'capital' because it may or may not be used for productive purposes. The amount that is saved may be hidden underground, or kept in a strong box—in other words 'hoarded' as it is commonly called. Hoarding does not lead to any productive use and so it does not lead to the creation of 'capital'. On the other hand, the saved amount may be devoted to some productive purpose by the saver himself, or by someone else; in either case, 'capital' has been created and there will be more wealth, a portion of which will go to the saver as what is called 'income'. 'Capital' is, therefore, regarded as that part of man's wealth which is devoted for the purpose of getting an income.

Circulating and Fixed Capital

Capital performs a double function. It is both a result and a factor of production. As a factor of production, capital is distinguished as either 'circulating' or 'fixed'. 'Circulating' capital is that which fulfils its function in production by a single use, e.g. raw materials, stock of things to be sold, etc. Capital is called 'fixed' when it exists in a durable shape and is thus capable of performing repeated services, viz. buildings, machinery, etc.

Efficiency of Capital

The efficiency of capital depends on (*a*) its fitness as an agent of production, and (*b*) the way in which labour is applied to it.

(*a*) Every item of capital must be suitable for the end in view. A large and costly factory building or a highly powerful machine would simply add to the cost of small producers and so become uneconomical to that extent. Similarly a small factory or a small machine would prove inadequate for a large producer. An up-to-date machine is generally more economical and hence more efficient than an old-fashioned one because with the same amount of labour the former can turn out more and probably also better things than the latter.

(*b*) The best of machines or the best of materials would be totally useless if skilled labour be not applied to it. The latest and the most powerful type of railway engine, for example, would merely embarrass the driver who did not know its technique. 'A bad workman', as the proverb goes, 'quarrels with his tools'.

Since in modern business it is the organizer who undertakes to arrange the other factors in suitable proportions the efficiency of every one of those factors—land, labour and capital—will depend considerably on the way in which it is organized along with the others.

Growth of Capital

'The growth of capital', says Marshall, 'depends upon the power and the will to save; the power of saving depends upon the amount of wealth out of which savings can be made'. If a man has to spend everything that he earns for the satisfaction of his immediate wants there is no saving and consequently no capital. Hence it follows that in a poor country like India the growth of capital can proceed only at a slower pace than in a rich country like England. The existence of surplus therefore is an essential condition of the growth of capital.

The power to save however cannot, by itself, lead to the creation of capital. It must be accompanied by the will to save. 'In pre-British India', as Shirras points out, 'the nobles had the power to save, but this was greatly counteracted by the lack of will to save'. The lack of the will to save in those days was due mainly to the absence of security, political as well as commercial. The administrative methods of the time left property, even life itself, in danger of being robbed, and opportunities for

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investments were totally absent. Hence it is no wonder that although large quantities of gold and silver came into the country there was no corresponding increase of capital. The will to save is, also, influenced by man's habits and motives. A man may have a surplus and there may be no lack of security; yet there may be no capital because due to a lack of foresight he may dissipate the surplus in reckless or extravagant expenditure. Thus there are two sets of conditions which determine the will to save—one mental or subjective, the other external or objective.

THE SUBJECTIVE CONDITIONS:

(1) Thrift or 'the habit of distinctly realising the future and providing for it' is a great incentive to saving. A man of reckless habits cannot save even though he may have a big surplus. An average cultivator in India has no foresight and therefore spends his surplus in expensive social customs like marriages and funerals, in litigation or in ornaments and jewellery. Hence the growth of capital is adversely affected by his improvident habits. Thrift should not, however, be carried too far as in the case of misers, some of whom would even deny themselves the necessaries of life to feed their passion for saving.

(2) Family affection affords another chief motive for saving. Amongst people in whom, as in the case of Indians, family affection is very strong, there is, also, a strong desire to save for their wives and children.

(3) A hope of rising in life or an aspiration after a good social position furnishes yet another motive for saving. A commoner in England who aspires to a peerage will apply himself harder than ever to the accumulation of a suitable competence.

THE OBJECTIVE CONDITIONS:

(1) Security of life and property, such as that afforded by the 'Pax Britannica' in India, is an essential condition of saving. No man would surely save in a community where either life or property is liable to be taken away at any moment.

(2) Openings for safe and profitable investments, such as those provided by the advance in civilization and modern methods

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of business, also, promote the growth of capital. The greater these opportunities, the more are people induced to put by something for themselves or their children. Facilities for investment in industrial undertakings, banking organizations, savings banks, insurance companies, co-operative societies—all these promote thrift and saving. All these exist in India but not in a sufficiently developed or organized form as in more advanced countries. It is hoped that saving will receive a great stimulus in India when they are fully developed and widely spread.

(3) Social customs also affect the growth of capital. Indians with their expensive social customs like marriage, funerals, etc., are required to spend a lot on them and the margin of their saving is therefore diminished to that extent. Men's outlook on these things is however rapidly changing and it seems likely that the time is not distant when these customs will be purged of their evil effects.

(4) Subject to certain exceptions a rise in the rate of interest will generally stimulate the desire to save while a fall will generally check that desire.

CHAPTER VI

ORGANIZATION AND ENTERPRISE

Organization

In most cases it is clearly seen that production of wealth requires some land, some labour and some capital. The part played by organization is however less clear, though not less important. When, as in old days, business is conducted on a small scale, and the same man provides both the capital and the management, the distinction between the two is not easily seen ; but it becomes clear when, as in a modern industrial undertaking, one man supplies the capital and another supplies the brains of management.

The Organizer and his Function

The need for organization as a distinct factor of production arises from the increasing division of labour and the expanding size of modern business. As landowners, labourers and capitalists begin to form themselves into distinct groups, it is necessary that someone should undertake to co-ordinate their activities and resources for the purposes of production. This is the organizer, who combines the services of the other factors. Again, in a modern factory, a large number of people work together for a common end, and the desired result cannot be obtained unless they are properly organized. This, also, requires the services of the organizer.

Though, as in big business, the organizer is often assisted by a staff of experts, each in charge of each of the several departments, yet all of them simply work out the plan prepared by him. It is he who decides the size of the business, the quantity and quality of the outturn, and fixes the proportion of the several factors to be combined for that purpose. He selects a site suitable for the purpose, determines the size and character of the factory and the type of machinery to be installed therein. He estimates the quantity and quality of the raw materials and the strength of labour in various grades. He plans everything in such a way that there is no waste and every unit of land, labour and capital is turned to its best advantage. He fixes the price of the finished product and the remuneration of the several factors is also paid out by him. He is, in short, the hub of the whole system, and has, in fact, been compared to a general leading his forces. It is however to be noted that the analogy is by no means complete, for while the general must, of necessity, be an expert in military matters, no such expert knowledge is indispensable on the part of a business organizer except that he must be a store-house of abilities of the highest order. He must be full of resource, and must possess a wide knowledge of men and things and a capacity to choose the right man for the right job. So the fact remains that the whole business bears his mark and its entire outlook is determined by his efficiency.

Enterprise

Enterprise or risk-taking is an element of great importance in modern business. In a sense, risk is inherent in every form of productive activity and in every stage of human life. The hunter may find that one day there is no beast or bird in the forest ; the wandering nomad may find that the majority of his herd catches some blight one morning ; the farmer may find that his harvest is ruined by a drought or a deluge ; and the industrialist may find that with all his expenses and troubles, his output is no longer in demand. But while risk is present everywhere, its presence in modern business is remarkable for two reasons : 'the time-requiring process of production' and the expanding size of the market. In the first place, the complicated process of production in modern industry takes a long time before the finished products are ultimately in the hands of consumers. In the second place, owing to the wider range of markets the producer supplies the needs of consumers in distant lands so that he cannot readily adjust his production to their changing needs. Both these causes make modern business highly speculative and the element of risk therefore assumes a greater importance than before. The truth of this proposition is demonstrated by the existence of a whole array of insurance companies which play so large a part in the economic life of modern times. So it is impossible to overlook the importance of the risk element in modern business and risk-taking or enterprise is rightly regarded as an independent factor of production.

Risk-taking may or may not be associated with organization. In a private business the organizer himself is the risk-taker but in joint-stock business it is the shareholders who take the risk. Hence it would be a mistake to regard risk-taking as included under organization. There are indeed people who think that by successful organization, as, for example, in a socialistic commonwealth, the element of risk can be eliminated or at least its predominance reduced. This would probably be true so far as risks, about which mathematical calculations can be made, are concerned. But there are risks which can be calculated only by human judgment about which no hard and fast rule can be laid down. So far as these are concerned, their importance would increase rather than diminish in a collective organization, for the greater the organization, the greater will be the risk to be faced. Hence it would be unsafe to conclude that by widening the organization the element of risk can be reduced in importance.

The Entrepreneur

The number of persons who can successfully take the risk in the initial stages of an industry are indeed very few,—because risk-taking in the pioneering stage demands a rare combination of qualities, none of which is so common. As Henderson remarks, 'not only must they possess special knowledge, ability, imagination, confidence in their own judgment and the capacity to act on it ; they must also have at their disposal considerable financial resources'. A combination of qualities such as those mentioned above is scarcely to be met with. Hence the few, who do combine them, are generally in a position to secure a very high reward for their services. This explains the huge fortunes of a Ford, of a Morris, of a Tata or of a Mukherjee. The profits that they earn represent, as the same writer points out, 'not only the reward of risk-taking and the necessary remuneration of their own services, but a handsome payment for the special qualities and advantages which have been indicated'. Such persons, 'Captains of Industry' as they are often called, bear the specific name of 'entrepreneur' in French. There is no English equivalent of this term ; the corresponding German word is 'unternehmer'.

The most characteristic function that the entrepreneur performs is that of taking risk. But risk-taking is by no means his only function. For in addition to that he performs, to a large extent, the work of management and also supplies at least a considerable portion of the capital. Thus the entrepreneur combines in him the risk-taker, the organizer and the capitalist.

Division of Labour

One of the essential conditions of efficient organization 'is', says Marshall, 'that it should keep every one employed at such work as his abilities and training fit him to do well'. The division of labour is therefore a very important factor in the economic life of man.

'Division of labour' comes into existence when every one, instead of doing the various kinds of labour for the satisfaction of his own wants, does only that kind of it for which he is best fitted. When, for example, instead of every savage doing hunting, making vessels for drinking and building huts, one goes to hunt, another makes vessels and a third builds huts, there is a 'division of labour' among them. This has been carried much further with the progress in civilization so that in a highly organized modern factory each man does only a fractional part of an entire thing. It is, however, clear that persons, who do the several parts of an entire thing, only combine their efforts to bring about the final result. It is equally clear that those who are working in different industries do also combine—consciously or unconsciously—to supply the numerous wants of the community. 'Each', as Taussig points out, 'contributes his special product to be used by all ; each uses the product contributed by the rest'. The 'division of labour' has therefore been described as the 'combination' or 'co-operation' of labour.

Forms of Division of Labour

There are two forms of division of labour—the simple and the complex.

The simple division of labour dates back into antiquity. The caste-system in India, which assigned special functions to the Brahmins, the Kshatriyas, the Vaishyas and the Sudras, is an instance of it. Under this form each man works at the various stages in the production of an entire thing. The cobbler does not merely make the shoe ; but he also tans the leather himself, and conducts every other operation for turning raw hides into shoes. Thus there arise the different groups, of tailors, of cobblers, of carpenters, etc., each engaged in its particular trade or profession.

The complex division of labour is of comparatively recent origin. Under this form the entire process of making a complete thing is divided into a number of operations, each of them being done by a different person. In shoe making, for example, there is a splitting up of the several operations—as many as eighty in a modern shoe factory—each of which is entrusted to a different worker. Thus instead of being made by a single cobbler a single shoe made in a modern factory combines the labour of as many as eighty labourers.

There is yet another phenomenon which, though not strictly speaking a form of division of labour, is yet described as the 'geographical' or 'territorial' division of labour. The geographical division of labour or the 'localization of industries' takes place when for physical, social or other causes particular industries grow up in particular localities. The Jute Industry of Bengal, the Cotton Industry of Bombay, the Woollen Industry of the Punjab and the Leather Industry of the U.P., are instances in point.

Advantages of Division of Labour

There are numerous advantages of division of labour, some of them arising directly from it, others indirectly from the introduction and use of machinery to which it eventually leads.

DIRECT ADVANTAGES

(1) The chief advantage of division of labour lies in the gain in dexterity which comes from the constant practice of the same occupation. Typewriting is a highly technical art for those who do not know it, but a practised hand will do it as easily as we take our food.

(2) There is a saving in time when a man does only one occupation. A considerable time is lost in going from one occupation to another when the same man has to attend to two or more occupations.

(3) There is a gain in adaptation if each individual—man, woman or child—is called on to do only that for which he or she has the greatest capacity. It is obvious that there will be waste if a woman is given the task of a man or *vice versa.*

(4) With the gradual development of the division of labour many of the processes are reduced to the continuous repetitions of identical movements. This has eventually led to the introduction of machinery and various advantages arising therefrom.

INDIRECT ADVANTAGES ARISING FROM THE USE OF MACHINES

(1) There has been a considerable lessening of physical strain because the heavier work is generally taken over by machine.

(2) Machinery also lessens the monotony of work, as the more monotonous works are done by machinery.

(3) As the machines are generally almost similar in character, the machines employed in one industry differ very little from those employed in another. Consequently a worker, say in a watch factory, if thrown out, may easily find employment without any further training with a cloth manufacturer. Thus the barriers between different industries have been weakened by the introduction of machinery.

(4) The application of power has led to the further division of labour and therefore to further opportunities for the introduction of more machines.

Disadvantages

The disadvantages of the division of labour are also partly direct and partly indirect arising from the use of machinery and the factory system which machinery brings in its train.

DIRECT DISADVANTAGES

(1) It leads to a decrease in general efficiency in proportion as it increases specialized skill. A man who makes only the tongue of a shoe will make the tongue better than one who

makes a complete shoe ; but he cannot make the complete shoe as efficiently as the latter.

(2) Work becomes monotonous as a man is required to repeat the same operation again and again, as, for example, in feeding a machine with paddy in a rice mill.

(3) When a man is doing a small part only of a thing, when, for example, a worker in a shoe factory makes only the tongue and nothing else, his mind tends to become narrow. He does not take the same interest as the cobbler who makes the entire shoe.

INDIRECT DISADVANTAGES

The introduction of machinery has promoted large-scale production and has led to what is known as the 'Factory System' —a system under which a large number of workers are grouped together in one factory. So the towns and cities become overcrowded at the expense of the rural areas. These tendencies give rise to the following evils :

(1) An overcrowded town can offer very little scope for healthy play or for the enjoyment of fresh air, so that the health and strength of the people are most adversely affected. Conditions within the factory also are far from desirable from the point of view of health.

(2) Owing to the large number of men employed there has been an enormous increase in the power and importance of the managers and a proportionate loss in the direct personal touch between the employer and the employee. The two are thus led to group themselves in opposite camps with constant bickerings and quarrels and consequent loss in productive efficiency.

(3) Factory life tends to cripple not only man's capacity but his character also and results, therefore, in a loss of individuality.

(4) The employment of women and children in factories tends to weaken family life and so gives rise to social problems of a serious kind.

Most of these evils are, however, remediable and steps may be taken with a view to remove them. The balance, therefore, would seem to lie in favour of the advantages of division of labour which has, more than anything else, led to an enormous increase in productive efficiency.

LARGE-SCALE PRODUCTION

Growth of Large-scale Production

It is evident that the gains arising out of the division of labour and the employment of machinery can be secured only when there is sufficient work to be done so that both labour and machinery can be kept well employed. This explains the tendency towards large-scale production which has been further stimulated by the widening of the market and by the wastefulness of competition. Although small business has not disappeared and there are no signs that it will ever disappear in future, the tendency towards large-scale production is unmistakable and reaches its height in the formation of what are called 'trusts' and other forms of combination.

Advantages of Large-scale Production

The advantages of large-scale production lie in the various ways in which it can effect economy in production.

(*a*) ECONOMY OF LABOUR

As the division of labour can be carried to a greater extent each man in a large business is employed at the task for which he is best fitted and he is fully occupied during the working hours.

(*b*) ECONOMY OF POWER

The larger the scale on which an enterprise is conducted, the greater is the opportunity for using machinery to advantage. The gain from the use of machinery arises in the following ways:

(1) Power itself becomes cheaper as it is applied on a large scale.

(2) Machinery can be employed with advantage even for subsidiary operations.

(3) A large factory can easily replace old and worn out machines by those more up-to-date.

(*c*) ECONOMY OF MATERIALS

Many small things including the by-products which are thrown away in a small factory are utilized and become a source of profits in a large business.

(*d*) ECONOMY IN BUYING AND SELLING

A large-scale producer buys in large quantities, so he buys at lower prices. He pays lower freights and other transportation charges.

He, also, sells in large quantities and therefore saves himself some trouble in keeping accounts and attending to other work such as packing, despatching, etc., which require detailed supervision. He gets a good price because his reputation and the large stock which he can offer attract customers. He can spend large sums in advertisement through printed catalogues and travelling agents, yet at a less cost per unit of product. Further, he achieves notoriety because he produces a variety of goods which advertise one another.

(*e*) ECONOMY IN THE EXPENSES FOR EXPERIMENT AND RESEARCH

Experiment and research can be carried on more efficiently in a big business because it can afford to engage specialized experts whose services are too costly for a small producer. Further, an experiment involves risks, because it may or may not succeed. If it fails, there is loss to the business. Such losses, which may even kill a small business, will appear insignificant to a big one when spread over its huge outturn.

Limitations of Large-scale Production

The numerous advantages claimed for large-scale production may lead one to expect that sooner or later small business is going to be driven out of industry. Small business, however, still survives, and shows no signs of either decay or even diminution. The following reasons will explain the persistence of small business:

(*a*) Big business has its own limitations;
(*b*) In certain industries large-scale production is less advantageous than small-scale production; and
(*c*) Small-scale production has its own advantages.

(*a*) *Limitations of big business*

(1) THE SIZE OF THE MARKET

We have seen that the tendency to large-scale production has been stimulated by the widening of the market. Markets, no doubt, are wider, nowadays, than before, yet they are not without limits; and there are many articles for which the demand is not large, steady and uniform. Hence the tendency towards large-scale production is effectively checked, because it is useless to turn out goods which cannot find a profitable market.

(2) 'THE INFIRMITIES OF HUMAN NATURE'

Production on a large scale can be carried on only with hired labour. But human nature being as it is, a hired labourer cannot be expected to display as much energy and spirit as an independent worker because he has no direct interest in the enterprise. Hence effective control and supervision become indispensable. But it is evident that such supervision tends to be difficult in proportion as the area, over which the business is spread, increases. So the tendency towards large-scale production is not so strong in agriculture as it is in manufacture in which it is possible to concentrate a great deal of operations in a small area.

Yet the tendency cannot be said to have an unrestricted scope even in manufacture, because successful supervision of a business calls for a combination of qualities by no means too common. There are comparatively few individuals who possess the requisite capacity, and the capacity of even the best among them is, after all, limited. Hence there is always a limit to the increase in the scale of operations even in manufacture.

(b) *Disadvantages of Large-scale Production*

(1) In industries, where the product is not uniform in quantity or cannot be graded or treated in bulk, large-scale method will not apply. In agriculture, for example, grain farming on a pretty large scale with the help of machinery is economical in thinly peopled tracts, but in more crowded regions it pays better to utilize the varying qualities of every slice of land—by fruit, vegetable or dairy farming—and the necessary care and detailed attention will be best given by a small farmer.

(2) When individual requirements have to be met, the factory-made article is out of place. A factory can supply the customer more cheaply than a small producer; but it can only give him the kind of thing, not exactly the thing he requires. The tailor's

business, where there is no marked tendency towards an increase in size, is an illustration to the point.

(3) When local needs are to be attended to, the advantages of being on the spot outweigh the advantages of economy offered by large-scale production. This enables even a single workman to keep a large share of the work of domestic repairs, and a small retail shopkeeper to carry on in spite of the presence of big stores.

(c) *Advantages of Small-scale Production*

(1) In small-scale production the 'master's eye' is everywhere. The employer himself can render effective supervision and can see that there is no waste on account of either materials or labour.

(2) In small-scale production the competition is maintained at a high level. That competition is wasteful is obvious in certain cases ; but the waste, on the whole, is probably less than it appears, because competition brings the best out of every individual and promotes industrial efficiency, eliminating the inefficient.

Further, competition leaves the purchaser some freedom in respect of his choice. The satisfaction that comes from the freedom of choice explains in large part the existence of rival businesses side by side.

Types of Business Organization

(1) The earliest and the simplest type of business is the 'single-man' business. In its typical form the owner of the business has his own land, works his own capital, and is himself his own manager. He employs no labourer ; he himself performs the necessary labour assisted by members of his family. He takes all the risks ; the profits of the business are his, so also the losses.

(2) The next step was taken with the introduction of 'partnership' system. In a partnership business ownership and risks, and usually also, control, are shared by all the partners—two or more but always limited in number. The two types spoken of above are called 'private concerns' and are distinguished from a 'limited business' as described below.

(3) Partnership business suffers from one very serious defect. In case the business fails, a partner loses not only the capital he has put into the business but everything else he possesses ; in other words, his liability for the debts of the business is unlimited. In consequence, business becomes a very risky affair, and satisfactory progress cannot be made so long as the principle of 'unlimited liability' holds the field. Modern business was, therefore, revolutionized with the recognition of the principle of 'limited liability' and the consequent introduction of 'joint-stock business'.

This is the predominant type in the present time, especially in advanced countries. It has numerous advantages, the most important of which is that by investing money in a joint-stock business a man does not run the risk of losing more than his share ; in other words, his liability is limited, that is, limited to the extent of the share he takes. Further, it has enormously extended the scale of business by separating 'management' from 'capital'. This, on the one hand, has led to a more efficient management of businesses by men of special ability though they themselves may have very little or no capital, and, on the other, has enabled small capitalists, even the ordinary workers, to become partners in big businesses.

(4) Business organization however reaches its zenith with the formation of what is known as 'Combination' in its two forms—'horizontal' and 'vertical'. 'Horizontal combination' or 'Trust' is, as Taussig says, 'the union under single management of a number of enterprises of the same sort'. Early in 1931 it was proposed that a number of cotton mills in Bombay should form such a combination, but the proposal fell through. 'Vertical combination' or the 'integration of industry' appears when all the successive steps in the production of an article are united under single management. The iron industry, for example, may be split up into a number of separate processes such as mining, smelting, steel-making, etc. Each of these processes may be taken up as an independent business or all of them may be combined in a big business. In the latter case, a 'vertical combination' is formed.

There is yet another form of combination to be found chiefly in Germany. This is called 'kartell'. A 'kartell' is an organization for the purpose of fixing prices and output with a view to eliminate competition.

(5) 'Co-operation', a further form of business organization, originated in Germany during the middle of the 19th century. It has been tried in more than one way, mainly in credit, in agriculture, in distribution and in production. Its ideals are not only economic, but also social and ethical. Economically its objects are to eliminate the money-lender in credit, the middleman in agriculture and in distribution, and the managing employer in production. In short, it aims at securing all control and profits for its members.

(6) Less ambitious in scope than co-operation are other devices such as 'co-partnership' and 'profit-sharing'. Their aim is to reconcile the conflicting claims of labour, capital and organization. The underlying idea is to retain the advantages which are claimed for individual or company management and to give the wage earners an interest in the success of the business by assigning to them, in addition to their wages, a share of the profits.

All the above forms typify private ownership and control in one form or another. Industries may also be organized under 'public ownership' and control. 'Public ownership' may take the form of 'municipal ownership' as in the case of municipal water service or 'State ownership' as in the case of the Post Office or the Telegraph. Public ownership however presents no peculiarities of organization except that the ultimate control is vested not in any private individual but in a public authority—the municipality or the State—which is, also, entitled to all the profits and liable for all the losses.

The Law of Increasing Return

The Law of Diminishing Return applies to 'land' while the Law of Increasing Return applies to 'manufacture' where land plays relatively a less important part. The Law of Increasing Return has been stated by Marshall thus: 'An increase of capital and labour leads generally to an improved organization which increases the efficiency of the work of capital and labour'. An increase in the size of a business due to the application of more capital and labour brings in the economies of division of labour and of large-scale production ; so the output increases more than in proportion to the additional amount of capital and labour employed.

A cloth manufacturer, let us suppose, invests Rs. 25,000 in labour and capital in the most suitable proportion, and gets an outturn of 100,000 pairs of cloth. He then doubles the amount of both capital and labour by doubling his investment. As the same proportion between the factors is maintained it follows that his output, also, will double. But meanwhile the increase in the scale of operations will bring in the economies spoken of above so that the total output will be more than double. He, now, gets an output not of 200,000 pairs of cloth but probably of 225,000 pairs. The output is increasing more than in proportion to the additional cost ; in other words, the return for the same cost is increasing.

Though the Law of Diminishing Return applies to agriculture and that of Increasing Return to manufacture, it is not to be supposed that they are two distinct laws each of them applying to one particular type of industry. Increasing or diminishing return merely expresses greater or less productivity in proportion to increased labour and capital. The first is seen more clearly in connection with manufacture, the second in connection with agriculture ; though the appearance of diminishing return in manufacture or that of increasing return in agriculture is by no means impossible.

The Law of Constant Return

A further example may be given in which an increase in the scale of operations is followed by an increase in return neither more nor less than, but just in proportion to, the increase in cost. When the actions of the laws of increasing and diminishing return are thus balanced, the case is one conforming to what is known as the Law of Constant Return. This law states that an increase of capital and labour leads to an increase in return just in proportion. Suppose a woollen manufacturer invests Rs. 10,000 in capital and labour and produces 5,000 blankets. He then invests a further sum of Rs. 10,000 in capital and labour. The increase in the scale of operations will, no doubt, bring in some economies ; but the increased demand for raw wool will probably lead to an increased cost. Consequently the resulting advantage in one direction is neutralized by the disadvantage arising in the other. The manufacturer therefore will produce only 10,000 blankets, that is, just double of what he produced before. In other words, his case is one conforming to the Law of Constant Return.

CHAPTER VII

THE INDUSTRIAL REVOLUTION IN ENGLAND

English Trade and Industry prior to the Industrial Revolution

Prior to the 16th century trade and industry were as yet conducted in England, as in other countries, on a small basis. The village was as yet the economic unit and trade was very little developed as every village or manor was practically self-sufficing. Agriculture, still in its infancy, was carried on according to the old 'open-field' system. Holdings were small and scattered, and there was no diversification or rotation of crops. Industry was still in its handicraft stage, carried on according to the domestic as distinguished from the capitalistic system. Every craftsman was an independent producer, he had his own capital and his own set of customers. Very little, if any, hired labour was employed.

The geographical discoveries of the 16th century and the colonization of the 17th opened up wide territories, where finished products could be sold and raw materials bought. Added to those the English supremacy at sea gave a great stimulus to the development of English industry and trade. Nevertheless, there was no remarkable change except that in the new order of things the old idea of self-sufficiency assumed a wider outlook, the village being replaced by the country as an economic unit. This idea of national self-sufficiency was reflected in the Mercantilist policy of State regulation of both industry and trade.

The Industrial Revolution

An epoch-making change, however, came about with a series of great inventions during the second half of the 18th century. This was the 'Industrial Revolution', so called because it brought about 'a change in the arts, and a consequent change in economic and social conditions, greater', as Taussig says, 'than has appeared in a like short time in any stage of human history'. In other respects, however, the change was of a purely evolutionary character—the outcome of processes which had been gaining ground for about two hundred years before they came to a head. The change reflected itself mainly in industry, in transport, in agriculture and in economic theory and policy, all acting and re-acting on each other.

Characteristic Features of the Industrial Revolution

In industry, cotton was the first to feel its influence. The successive inventions of Hargreaves, Arkwright and Crompton perfected the spinning machine and water-power was soon applied to set it in motion. Not long afterwards weaving also was improved by Cartwright's invention of the power loom. The power-loom was steadily improved and it gradually supplanted the hand-loom. Steam-power then came to be substituted for water-power and gave rise to the factory system and to the crowded textile centres of England.

The application of steam to transport on land and sea in the first half of the 19th century completely revolutionized its character and gave a great impetus to the development of industry and commerce.

In agriculture, also, a phenomenal change took place. The old system of 'open-field' gave its place to the 'Enclosure' system. Farms became more compact and marked off from one another by means of hedges and walls. Intensive cultivation and rotation of crops were introduced. In course of time due to various causes large farming replaced the small and capitalism found its way in agriculture just as it did in the manufacturing industry.

Along with these changes economic thought and policy also took a new direction from the time of Adam Smith. The system of State regulation of the economic life of the nation was replaced by a system based on individual freedom in trade and industry.

Results of the Industrial Revolution

As a result of all these changes there was an immense increase in England's total wealth, a vast expansion of trade, both internal and external, and a rapid increase in population. But the picture was not without its dark side. As the old domestic system was replaced by the capitalistic system in both industry and agriculture, the great bulk of the population was deprived of its former means of living and had migrated to the newly developed industrial towns to seek employment in the factories as hired workers. But conditions in the factory were far from desirable and there was no security of employment. All these evils conspired to stiffen the attitude of 'Labour' towards 'Capital' and gave rise to a number of complex social, political and economic problems.

CHAPTER VIII

EXCHANGE

The Necessity of Exchange

All economic phenomena are in the last resort traceable to man's wants and his efforts for their satisfaction. In the most primitive stage of society a man's efforts result in the direct satisfaction of his wants. But as economic life begins to assume a complex character a stage is soon reached when man's efforts result in the satisfaction of his wants not directly but indirectly only. There is now a gap between the efforts and the satisfaction and this gap is bridged over by the exchange of one product for another.

The Means of Exchange

The means of exchange refer to markets where exchanges take place. In economics the term 'market' is not used with reference to any particular place where things are bought and sold. 'Economists', says Cournot, 'understand by the term market not any particular market place in which things are bought and sold but the whole of any region in which buyers and sellers are in such free intercourse with one another that the prices of the same goods tend to equality easily and quickly'.

Thus understood, it is clear that markets should vary in their size, for the market in respect of a particular commodity may be only local while in respect of another it may be as wide as the world itself. Gold and silver, for example, have a world-wide market because they are not only in universal demand but are also easily portable and capable of being exactly described. On the other hand there are articles which cannot be profitably carried from place to place or which satisfy only local or individual need. The markets for these commodities are necessarily restricted in area, and are, in some cases, confined only to the locality of their origin.

The Conditions of Exchange

The primary conditions of exchange are that there must be two parties and that each of the parties must have something to offer in return for the thing in possession of the other. But the mere possession of something by each of the parties is not enough unless each of them prefers to have the thing in possession of the other and is further willing to part with the thing in his possession in return for the thing in possession of the other. The preference by each of the parties for the thing in possession of the other and the willingness to part with his own for the same involves a comparison between the satisfaction to be derived from a particular quantity of the thing to be gained and the satisfaction to be derived from a particular quantity of the thing to be parted with. Thus if there is an exchange of one seer of 'gur' with one seer of rice between a gur manufacturer and a farmer it is evident that the gur manufacturer expects to derive greater satisfaction from one seer of rice than from one seer of gur and the farmer expects to derive greater satisfaction from one seer of gur than from one seer of rice.

But it does not follow that the gur manufacturer likes rice while the farmer likes gur or that the preference of the one is the opposite of the preference of the other. As a matter of fact both the gur manufacturer and the farmer may have a greater liking for one or other of the two articles, yet there may be exchange between them because the gur manufacturer's liking for either of the two things in relation to the other may be different from the farmer's. In the second place, exchange does by no means indicate the absolute preferences of the two parties concerned. In the example we have taken it is true that the gur manufacturer prefers one seer of rice to one seer of gur and the farmer prefers one seer of gur to one seer of rice ; but it does not necessarily follow that the former likes rice more than the latter or that the latter likes gur more than the former. The gur manufacturer may like gur more than the farmer and yet part with it, provided he likes rice more than gur and at the same time likes both rice and gur more than the farmer. Suppose the gur manufacturer gets 10 units of satisfaction from a seer of rice and 5 from a seer of gur, while the farmer gets 1 unit of satisfaction from a seer of rice and 2 from a seer of gur ; it will then be clearly to the advantage of the farmer to part with a seer of rice for a seer of gur because thereby he saves one unit of satisfaction while the gur manufacturer, though he likes gur more than the farmer, is yet a gainer as he saves five units by this transaction. Thus the exchange between the gur manufacturer and the farmer merely expresses that the former's liking for gur as compared with rice is different from the latter's. In other words, an exchange merely indicates a difference in reciprocal demand which is the fundamental condition of all exchanges, whether domestic or international.

The Forms of Exchange

Barter.—Exchange may take the form of either 'Barter' or 'Sale and Purchase'. In primitive and backward communities exchange takes place in its simple form, viz. 'barter', that is, the exchange of one article for another. When there is a transaction between the farmer and the cobbler whereby the farmer parts with a quantity of his grain in favour of the cobbler in return for a pair of shoes made by the latter, an exchange in the form of barter takes place between them.

Sale and Purchase.—Exchange in the form of barter, however, has numerous disadvantages. The farmer may not require the shoes or the cobbler the grain. So money is introduced to overcome these difficulties. With the introduction of money, exchange takes the form of 'sale and purchase'. Goods are no longer exchanged for goods but for money and value of a thing is no longer expressed in terms of another but in terms of money that is paid for it.

Utility, Value and Price

The power of satisfying want is called 'utility'.

The term 'value' is used in economics in two different senses. It may mean either 'value in use' or 'value in exchange'. In the former sense, it is synonymous with utility and refers to the want-satisfying power of a thing. In the latter, it refers to the power possessed by a thing of acquiring another thing in exchange, in other words, 'power in exchange'. Thus if a pencil is exchanged for a pen we may say that the value of the pencil is the pen and that of the pen, the pencil. Value, therefore, in the latter sense, is 'the expression of the worth of a thing in terms of the other for which it is exchanged'.

The different uses of the term value however lead to confusing results. For while in the former sense the value of gold is, no doubt, less than the value of iron, in the latter, the value of gold is certainly greater than the value of iron. Hence the modern tendency is to restrict the use of the term value in the sense of 'value in exchange' only.

The expression of the value of a thing in terms of money is called its 'price'.

Demand and Supply

In every exchange there are two parties, the buyers and the sellers. The buyers want to buy the goods, the sellers want to sell them. The buyers' side is spoken of as 'demand', and the sellers' as 'supply'. The terms seem easy enough to understand but in economics they are used in a precise sense.

Demand.—In ordinary language demand denotes desire but in economics it means 'not mere desire, but effective desire, —a desire which will have some effect in the transactions of the market'. A poor man may have a strong desire for a motor car or a miser for a gramophone. But in neither case will there be any change in the market of those things as the poor man has no means to offer in exchange for a car and the miser, though he has the means, has scarcely the willingness to part with those means for a gramophone. Hence the desire in neither case can be regarded as a demand. A demand therefore in the economic sense implies more than a mere desire: over and above the desire for a thing it also implies the possession of some means to be offered in exchange for it as well as the willingness to part with those means for the purpose.

Thus it is clear that demand is influenced by price and 'demand has therefore come to mean elliptically the quantity demanded at a given price'. If the price of anything—say oranges—is high, less oranges will be bought, but people will buy more oranges if the price is low. This happens because oranges have not the same utility for all persons and the maximum price any one is willing to pay for them will be determined by their utility. Demand, therefore, is closely related to and affected by price.

ELASTICITY AND INELASTICITY OF DEMAND

The demand for nearly everything varies with price, that is to say, the demand increases as the price falls and diminishes as the price rises. But the variation in demand is not equally noticeable in every case. In some cases it is seen more clearly than in others.

When demand for an article promptly responds to a rise or fall in its price, it is said to be 'elastic'. The demand for articles of fashion or of luxury may be said to belong to this class. If the price of a watch or a fountain pen is reduced, the demand in each case will increase; but it will decrease when the price is raised.

On the other hand, there are things the demand for which remains very much the same even if the price is altered. The demand for salt is not likely to increase much with a fall in its price or decrease appreciably with a rise. In such cases the demand responds but slightly to price-changes and is, therefore, said to be 'inelastic'.

Supply.—Like demand, supply, also, is influenced by price. Just as there is a distinction between desire and demand so also there is a distinction between 'stock' and 'supply'. 'Stock' refers to the quantity of goods that could be sold; 'supply' refers to the quantity that would be sold at a given price. Suppose there are two persons 'A' and 'B', each of whom has a table to sell, A at Rs. 10 and B at Rs. 8. The stock therefore is of two tables but the supply will vary with the variation in price. When the price is Rs. 10 for a table, the supply, no doubt, is of two tables; but at Rs. 8 for a table the supply is of one table only and at a price below Rs. 8 there is no supply at all. This happens because every seller has to incur numerous expenses before his goods are finally ready for sale. Consequently no seller can dispose of his goods at a price which is not likely to cover his cost of production. As the cost of production is not the same for all sellers every seller has a minimum price below which he cannot go. Hence supply, too, is closely related to and affected by price.

ELASTICITY AND INELASTICITY OF SUPPLY

Like demand, supply, also, in the case of nearly every commodity, varies with price, but in the opposite direction. The higher the price, the bigger the supply and the lower the price, the smaller the supply. But the variation in supply is not equally noticeable in all cases ; it is more prompt in some cases than in others.

When the supply is so influenced as to respond quickly to a rise or fall in price, it is said to be 'elastic'. The supply of manufactured articles is, in most cases, elastic. If there is a rise in the price of cotton cloth, its supply will increase but the supply will decrease if there is a fall in price.

On the other hand, there are commodities, as for example fruits and vegetables, the supply of which remains very much the same even when the price is altered. If the crop of oranges happens to be scanty in a particular year, the price of oranges will very likely go up but there will be no more oranges till the next harvest. So the supply cannot increase appreciably though the price happens to rise. On the other hand, if there is a bumper crop of oranges in another year, its price will possibly fall ; but as the crop of the year is there once for all, the supply will remain very much the same even though the price happens to fall. In such cases it is evident that the supply responds but slightly to price-changes and is, therefore, said to be 'inelastic'.

The Principle of Exchange—the Theory of Value

For every commodity in the market there are two parties to the exchange—a group of buyers and a group of sellers. The buyers are willing to have the thing and pay for it. Every buyer however has a maximum price beyond which he will never go, but he will try to pay as much less as possible. On the other hand, the sellers are willing to sell the thing for a price. Every seller however has a minimum price below which he will never go, but he will try to get as much more as possible. The buyers represent the side of demand, the sellers that of supply.

There are people who maintain that value depends solely on supply or the cost of production, while there are others who hold that value depends entirely on demand or utility. Neither view however appears to be correct and the truth would seem to lie midway between the two. Suppose 'A' has got a table to sell and 'B' wants to buy it. A's minimum price is Rs. 8 and B's maximum price is Rs. 10. Now the sale will obviously take place between Rs. 8, A's minimum, and Rs. 10, B's maximum. For if the price falls below Rs. 8 'A' will retire or if it rises above Rs. 10 'B' will retire. So these are the two limits between which the actual price will be settled.

But at what point between these two limits will the actual price be determined? This will depend on the relative bargaining strength of the two parties and on the strength of desire of the seller to sell and of the buyer to buy. If 'A' is more skilful in bargaining or is less eager to sell than 'B' is to buy, the price is likely to be nearer Rs. 10 than Rs. 8. If, on the other hand, 'A' is to sell, the price is likely to be nearer Rs. 8 than Rs. 10.

No doubt, in an actual market there will be many buyers and many sellers for each commodity; but the principle is the same. If however the number of sellers happens to be greater than the number of buyers then there will be competition among the sellers themselves and the sellers' minimum would be reduced to that of the stronger ones but not below it. The buyers therefore will get favourable terms. If, on the other hand, the number of buyers happens to be greater than that of the sellers the competition will be among the buyers and buyers' maximum would be raised to that of the more eager ones but not beyond it. The sellers will now get a favourable rate. Thus we see that both 'demand' and 'supply' or 'utility' and 'cost of production' play a part in governing value.

The statement that value is governed by both 'demand' and 'supply' does not, however, express the whole truth; it would be equally true to say that demand and supply are themselves governed by 'value', for demand and supply are themselves affected by price. If the price goes up, there will be more people to sell but less to buy. If, on the other hand, the price comes down, there will be more people to buy but less to sell. Both demand and supply are therefore influenced by price, but in the opposite direction. So through changes in price demand

and supply gradually approach one another till the equilibrium is reached, that is till the price is obtained at which the quantity demanded is exactly equal to the quantity supplied. The following illustration will clear the situation :—

Buyers' demand (Number of Tables)	Price (In rupees)	Sellers' supply (Number of Tables)
1,000 ...	... 50	12,000
3,000 ...	... 30	9,000
5,000 ...	... 20	5,000
6,000 ...	... 10	4,000
10,000 ...	... 5	2,000

When the price is Rs. 30 for a table 9,000 tables would be offered for sale but there would be only 3,000 buyers at that price. So the sellers would compete among themselves and price would come down, say, to Rs. 10. This change in price affects both demand and supply. The supply falls to 4,000 tables and the demand rises to 6,000. So there is now competition among the buyers and the more eager among them will pay a higher price, say, Rs. 20. At this price it is possible that 5,000 tables would be offered for sale and 5,000 bought. The equilibrium is thus reached and the market price of a table is for the time being Rs. 20.

But why should not more tables be bought at Rs. 20? Because the utility of tables to those who do not buy is less than the utility of Rs. 20. Among those however who buy the table at Rs. 20 there are many who would have given a higher price, if necessary, because the utility of the table to each of them is greater than Rs. 20. But to persons who are just induced to buy the table at Rs. 20 the utility of a table is worth Rs. 20 only and no more. They are on the margin between buying and not buying and so they are said to be the 'marginal buyers'. The ruling price—Rs. 20—therefore measures the 'marginal utility' of a table, that is its utility to the marginal purchasers, or, in other words, its marginal demand price.

Again, why should not more tables be sold at Rs. 20? Because the cost of production of those who do not supply at that price is greater than Rs. 20. Among those who sell the table at Rs. 20, there are indeed many who would have sold at a lower price, if necessary, because their cost of production is lower than Rs. 20. But to persons who are just induced to sell, the cost of production of a table is just Rs. 20 and no less. They are on the margin between selling and not selling and so they are said to be the 'marginal sellers'. The ruling price—Rs. 20—therefore measures also the 'marginal cost of production' or the cost of production to the marginal sellers, in other words, its 'marginal supply price'.

The price of a thing, therefore, or its money value is determined by the interaction of the two forces demand and supply acting and reacting upon each other through price-changes until the equilibrium is reached. The equilibrium or market price is the price which measures the marginal utility on the one hand and the marginal cost of production on the other ; in other words, it is the price where the marginal demand and marginal supply prices meet.

CHAPTER IX

MONEY—THE MACHINERY OF EXCHANGE

The Introduction of Money

Barter, the simplest form of exchange, is, after all, an unsatisfactory expedient. The inconvenience of a state of barter is clearly illustrated by the sad plight of the hungry hatter who cannot get meat because the butchers want not hats but boots. Hence the adoption of a third commodity which is to serve as a medium in every exchange. It is this third commodity which ultimately comes to be called as 'money'. Money, therefore, is defined by Robertson as 'anything which is widely accepted in payment for goods, or in discharge of other kinds of business obligation'.

Functions of Money

The primary function of money is that it serves as the 'medium of exchange'. It is through the medium of money that the goods and services of one man are exchanged for the goods and services of another. Money, therefore, is, by itself, of no use to us; we cannot eat or wear it. We want it and try to get as much as possible, because thereby we can get those things which we really need.

Besides this primary function, money has come to serve a few other functions as well. It is however not necessary that all these functions should be performed by everything which we call money and which serves as a medium of exchange. Of these subsidiary functions of money the following may be mentioned:

(1) Money is a 'standard of value'. It is common to reckon the value of all goods and services which are exchanged in terms of money. It is however evident that everything which is used as a medium of exchange is not itself a standard of value. A cheque, for example, is a medium of exchange just as a rupee is, but unlike the rupee, a cheque is never used in measuring values.

(2) Money is also used as a 'unit of account'. Accounts are kept more conveniently in terms of money than in terms of goods.

(3) Another function of money is that it serves as a 'store of value'. When there is a surplus of anything, say rice, the surplus is sure to perish and lose in value if stored in kind. *But if the surplus is sold for money, then this money* as *representing the value of the surplus can be stored with the least* danger of perishability or wastage. As a store of value money overcomes not only the time element, but the place difficulty also. If jute is not wanted in India it can be sold in London or any other place and its value brought back and spent here.

Forms of Money

Ordinarily we are apt to think of money in terms of metallic coins such as those of gold, silver, nickel or copper with which we are familiar. But metallic money is by no means the only form of money either in an advanced or in a backward community. As a matter of fact several other articles have been and are, even now, in use as media of exchange. When they are led to choose a third commodity as the medium of exchange, people naturally choose the one most familiar or in most common use. It may be an object which is used as an ornament, as shells have been in India, or it may be an article used extensively in a society in which it serves the purpose of a medium—such as cattle, tobacco, beer, rice, tea, furs, salt, hides and the like. Different objects thus seem to have played the part of the medium at different times according to the habits of life and stages of progress of different people. But there is one class of objects which early attracted the attention of man and was not slow in ousting all other commodities in all the more civilized societies. These were the so-called precious metals, gold and silver. Historically gold and silver came to be highly prized because they satisfy the craving for adornment. But there are other qualities which contributed greatly to making gold and silver the money metals.

Characteristics of a good commodity money

1. General Acceptability

It is evident that any commodity which can lay claim to being used as a medium of exchange must be acceptable to all. Gold and silver satisfy this condition more than anything else.

2. Facility of Transport or Portability

The commodity must be capable of being easily carried from one place to another. An object which, like gold or silver, has great value in small bulk can be carried from place to place far more easily and cheaply than any other object, say wheat or cattle.

3. Indefinite Durability and Imperishability

It must be able to stand constant and prolonged use. Owing to their chemical properties gold and silver—whether in hoarding or in circulation—are able to remain unchanged for a very long time. It has been estimated that a gold coin will entirely disappear in 8,000 years. All other commodities including even iron would go bad in a comparatively short time.

4. Stability in Value

It must not be subject to abrupt rise or fall in value. Wheat may rise or fall enormously in value, according as its annual yield is poor or plentiful. But the average annual yield of gold is such that any change in its value from year to year is scarcely felt. It may be noted here that one of the reasons of the recent tendency to reject silver as a money material is that owing to the more improved processes of production in modern times the annual yield of silver can hardly be expected to lead to a stability in its value.

5. Identity of Quality

The commodity chosen as the money material must not vary in quality from place to place. Metals being elements are identical. There would be no difference between gold from the Mysore mines and gold from Australia ; but there would be difference between Indian wheat and Russian wheat.

6. DIFFICULTY OF COUNTERFEITING

It must not be liable to be easily copied. The precious metals can be recognized by their colour, their ring and their weight, and are thus easily distinguished from all other metals.

7. PERFECT DIVISIBILITY

It must be capable of being easily divided so that all transactions—large as well as small—may be conveniently done. If an ingot of gold or silver is divided into 100 parts, its value is in no way affected ; the value of each part would be exactly proportional to its weight and the value of all the parts taken together would be exactly equal to that of the original ingot. On the other hand, if a precious stone, say a diamond, is cut into pieces, it will lose all its original value.

8. MALLEABILITY AND FUSIBILITY

The money material must admit of being given convenient shape. Precious metals can be melted down and given any shape convenient for the purposes of coinage.

It is on a consideration of all these points that gold and silver ultimately came to be widely accepted as the materials suitable for the purposes of money.

Evolution of Coinage

The use of precious metals as money has passed through three distinct stages :

(*a*) The precious metals were first used in the form of ingots. In every exchange, therefore, these had first to be weighed and tested.

(*b*) Tired of having to perform this double operation at every exchange man conceived the idea of using cut ingots, the weight and standard of which were determined beforehand and, if necessary, guaranteed by some seal or official stamp.

(*c*) One more step remained to be taken. Not only was the cubic or irregular shape of the ingot inconvenient, but, in spite of the stamp on it, it was quite easy to clip it without leaving any trace. To be sure of its value, it was still advisable to weigh it. It was to remedy this practical difficulty that the form of coined money, familiar to all civilized peoples, was adopted. Henceforward money takes the shape of a disc, stamped in relief on both surfaces with milled edges so that it cannot be tampered with without destroying the design.

This is the type of coin properly so called, which has not been sensibly altered for centuries and for which we may adopt Jevons' definition:—'Coins are ingots of which the weight and fineness are guaranteed by the Government and certified by the integrity of the designs impressed on the surface of the metal'.

Classification of Money

There are various kinds of money which may be classified under two heads:

(*a*) Money which is acceptable by the force of law, or money commonly so called.
(*b*) Money which is acceptable merely on the basis of confidence, or credit money.

(*a*) *Common Money*

Under this class come all those kinds of money to which the term money is generally applied. These are again divisible into two classes—

I. Metallic money; and
II. Paper money.

I. METALLIC MONEY

Metallic money may consist of gold, silver, nickel and copper. The use of nickel and copper is largely a matter of convenience. A gold or silver pice would be so small that it would be difficult to avoid losing it. Metallic money may again be divided into two classes—'standard money' and 'token money'.

'Standard' money is that money to which the value of all other things is referable, e.g. the American dollar. It is unlimited legal tender, that is, a seller or a creditor is, by law, required to accept it in payment of his dues. Standard money is occasionally subject to free coinage and its legal value is equal to its metallic value. 'Token' or 'subsidiary' money, on the other hand, consists of coins whose legal value exceeds that of the bullion and whose coinage is not free, e.g. the cent in America. Tokens are generally legal tender only up to a certain limit.

The 'rupee' in India is worth more as coin than as metal; its face value, in other words, is greater than its bullion value. It is, therefore, a token coin. But unlike the other tokens the rupee is unlimited legal tender in India. Again for internal purposes the rupee is the standard in India to which the value of all other things is referable. Hence the rupee occupies a peculiarly anomalous position. It is neither a standard money nor yet a token coin but partakes of the nature of both of them.

SYSTEMS OF METALLIC CURRENCY OR MONEY STANDARD

There are different systems of metallic currency.

A monetary system in which the principal or standard money is composed of one metal is called 'Mono-metallism'. Mono-metallism may be of either gold or silver. In the former case, it is called 'Gold Standard'; in the latter, 'Silver Standard' as in China. A gold standard country may or may not have gold coins circulating freely. If gold coins circulate freely and the bank of issue is bound to redeem all its notes in gold on demand then it is an instance of 'Full Gold Standard'. This was in force in England before the war and exists to-day in the United States. When however gold is not in free circulation within the country and its withdrawal is limited to large quantities presumably for foreign payments we have what is known as 'Gold Bullion Standard'. By an Act of 1925 England adopted the gold bullion standard as her system of currency. It may be noted however that by an Act of September, 1931, England abandoned the gold standard as a temporary expedient.

A monetary system in which the principal or standard money is composed of gold as well as of silver is called 'Bi-metallism'. Both gold and silver should be freely coined and both must be unlimited legal tender. At present bi-metallism exists nowhere in the world although it has been tried in several countries including the United States and France.

The case of India in this respect is somewhat peculiar. Prior to 1927 both the British sovereign and the silver rupee were unlimited legal tender in India. The sovereign however was not an essential feature of the internal currency, and for external purposes the rupee was linked to it at a fixed ratio. The Government were under no obligation to give sovereigns for rupees though they were bound to provide rupees for gold. This system came to be known as the 'Sterling Exchange Standard'. By an Act of 1927 sovereigns and half-sovereigns ceased to be legal tender in India and for external purposes the rupee was linked to gold at a ratio of 1*s*. 6*d*. per full weight sovereign. The rupee became the only legal tender and the Government undertook to give gold for rupees. This was to all intents and purposes a transitional measure designed to lead to the eventual adoption of a gold standard for India. In September 1931, however, the rupee was divorced from gold and was again linked to sterling at a ratio of 1*s*. 6*d*. to the rupee with a virtual drift towards the sterling exchange standard.

II. PAPER MONEY

Paper money has been in use from early times for the purpose of replacing a part of the metallic currency. It may be issued either by the Government, as, for example, the Government of India promissory notes, or by a bank under the authority of Government as, for example, the Bank of England notes. Paper money is usually legal tender up to any amount. Paper money may be divided into two classes—'convertible' and 'inconvertible'.

'Convertible' or 'redeemable' paper money consists of notes for which metallic money can be had on demand. It takes the form of a promise to pay a certain sum of money. The liability to pay may be fully covered by gold or silver, or it may be only partly covered as all the notes issued are not likely to be presented for payment at the same time. Thus in the case of the Government of India promissory notes, a portion only of the notes is fully covered while the rest is issued against securities. This latter portion—the portion that is issued against securities, and not against actual gold or silver—is called the 'fiduciary issue'.

'Inconvertible' or 'irredeemable' paper money consists of notes for which metallic money cannot be obtained on demand. There are two kinds of inconvertible paper.

In the first place, there is paper which is inconvertible from the time of its issue. The paper money issued by most of the belligerent governments during the Great War belongs to this class. Secondly, there is paper which is convertible at first, but ceases to be so either because of scarcity of metal or the insolvency of the issuers. The Bank of England notes, for example, were made inconvertible during the War on account of the scarcity of gold.

(b) *Credit Money*

Under this class come such kinds of money as promissory notes, bills of exchange and cheques. These are ordinarily termed as 'credit' since their acceptability is entirely a matter of confidence or trust. It is to be noted however that credit is not gold but a claim to gold only. Again these various kinds of money have no legal tender quality and therefore differ from those described above which possess this quality to a limited or unlimited extent. In the next place, they are not as freely or as generally acceptable as the others. This is why some people prefer to call them 'credit', restricting the use of the term 'money' to coins and notes. But this distinction would seem to vanish if we remember that as media of exchange they perform the same service as any other kind of money so called. Most payments in wholesale commerce to-day are made not in gold but in promises to pay gold or in credit instruments that constitute a claim to gold. The man who sells goods receives a cheque or a bill which gives him a claim to gold; the man who buys goods pays with a cheque or a bill which represents a claim to gold. The net result of this extensive use of bills and cheques has been a substantial economy in the use of gold as the medium of exchange.

BILL OF EXCHANGE

A 'bill of exchange', or 'hundi' as it is called in India, is, as Hartley Withers points out, an order by the seller of goods to the purchaser to pay the sum named in the order either to himself or to a third party. It may be payable on demand in which case it is called a 'sight bill'; but more generally it is payable after a period of time—say sixty days or ninety days plus the period of grace which is usually three days, and such a bill is called a 'time bill'. A bill of exchange bears a stamp varying in value with the amount stated in the bill. The seller of the goods is said to draw upon the purchaser and is called the 'drawer' while the purchaser is called the 'drawee'. After having shipped the goods and drawn the bill the seller sends the bill to the purchaser accompanied by certificates testifying to the possession of goods. The buyer or the drawee accepts the bill by writing his name below the words 'accepted' marked across the front of the bill. The bill is thus virtually converted into the buyer's own promissory note.

Suppose an Indian merchant 'A' of Calcutta has sold and shipped 100 bales of jute worth Rs. 5,000 to an English merchant 'B' in London, the latter having agreed to pay the price after three months to the Central Bank of India Ltd. 'A' then draws a bill of exchange upon 'B' in the following manner :—

Rs. 5,000. stamp

Calcutta, 1st January, 1932.

Three months after sight of this bill pay to the Central Bank of India Ltd., or order, Rupees five thousand only for value received.

Of 100 bales of jute per S.S. the 'City of Karachi' to London.

'A'

To 'B',
London.

The bill is then sent to the London office of the Central Bank of India by whom it is presented to 'B' for acceptance, say on the 20th January. 'B' accepts the bill in the manner described above and becomes liable for payment on the expiry of three months from January 20th, with the customary three days of grace added, that is, on the 23rd April. The Central

Bank of India now waits for the bill to mature or if it is in want of cash it will probably get the bill 'discounted', i.e. sold for cash with deduction of interest at the current rate.

Bills of exchange are used both in domestic and foreign transactions. When used in domestic transactions they are called 'inland bills'; those used in foreign transactions are called 'foreign bills'.

FUNCTIONS OF BILLS OF EXCHANGE

Bills of exchange perform two important functions. In the first place, a bill of exchange enables a producer to continue with his operations without waiting for his product to be sold. A cotton manufacturer, for example, having bought raw cotton, and manufactured cloth from it, will have to sell and get paid for the cloth before he can buy any more cotton to continue his operations. A transaction of sale and purchase takes time; besides the purchaser himself is not likely to be able to pay the price until he has received the cloth and sold it. The bill serves to tide over this double difficulty. The manufacturer draws a bill on the purchaser who accepts and sends the bill back to the former. The manufacturer pays for the cotton he requires with this bill or he discounts it with a bank and provides himself with the necessary funds to buy more cotton. Thus, on the one hand, the manufacturer is saved the loss and trouble of waiting for his product to be sold; on the other, the purchaser is afforded sufficient time which enables him to sell the cloth for paying its price.

In the second place, bills of exchange serve to settle foreign payments without the movement of specie. A merchant in Calcutta sells goods worth Rs. 1,000 to a merchant in London and draws a bill upon the latter. The London debtor is under an obligation to pay the Calcutta creditor at Calcutta in Indian money. On the other hand, a merchant in Calcutta buys goods from a London merchant worth so much in English money as is the equivalent of Rs. 1,000. The London creditor now draws a bill upon his Calcutta debtor. The Calcutta debtor has got to pay the London creditor in London and in English money. The shipment of specie from London to Calcutta or from Calcutta to London is a troublesome and expensive affair.

Further, there is the difference in currency. All these difficulties can be got over by the Indian debtor buying from the Indian creditor the latter's bill on the London debtor. The Indian debtor then sends this bill to his London creditor who collects the amount from the London debtor. No specie passes and the payment is effected more cheaply and conveniently.

CHEQUES

Cheques play a very important part in the monetary systems, especially of the English-speaking countries. 'A cheque', says Hartley Withers, 'is an order on a bank from one of its customers to pay some of the money which it holds on his account to a third party or to himself if he wants to take out cash'. It can be manufactured with a piece of notepaper and a stamp, though a stamp is not essential, as, for example, in India no stamp is required at present. It is however usual to use one of the well-known forms supplied by the banks to their customers.

The holder of a cheque is entitled to demand cash from the bank. But in countries where banking is highly developed this right to demand cash is rarely exercised. The receiver of a cheque usually pays it to his bank and his banking account is thereby swelled. Suppose two persons 'A' and 'B' have each of them a deposit of Rs. 50 with a bank. 'A' buys rice worth Rs. 10 from 'B' and draws a cheque for the amount in B's favour. 'B' may take out the money in cash but instead he pays the cheque to the bank. The bank now credits B's account with an additional Rs. 10, deducting, at the same time, Rs. 10 from the amount standing in its books to A's credit. A's account is reduced to Rs. 40 while that of 'B' goes up to Rs. 60. The transaction is complete without the use of any cash at all.

It may happen however that 'A' and 'B' are clients of not one but two banks. There may even be a larger number of banks with different sets of customers. Nevertheless, the principle is the same as in the previous case. Payment is made by means of cheques, that is, by purchasers transferring to the sellers claims on their banks, and the banks being in touch with one another can bring opposing claims together and cancel them.

THE CHEQUE AND THE BILL OF EXCHANGE

The use of the cheque like that of the bill of exchange involves an element of belief. Just as the soundness of a bill of exchange depends on the honesty of the drawer and the drawee, so also the soundness of a cheque depends on the solvency of the drawer of the cheque and on that of the bank on which it is drawn. It can be easily seen that a person may have overdrawn his account, or a bank may have put up its shutters.

But there are points of difference also. A cheque is payable on demand and thus differs from a bill of exchange which is generally payable on the expiry of a certain period. Again a cheque can be drawn only against a bank ; but a bill of exchange may be drawn against an individual or firm, and occasionally, also, against a bank. Further, whereas the value of the stamp to be affixed to a bill of exchange varies according to the sum stated in the bill, the value of the stamp to be affixed to a cheque is always the same irrespective of the amount named therein. Finally a cheque can be drawn for any amount but the value of a bill of exchange depends solely on the value of the goods against which it is drawn.

CHAPTER X

DISTRIBUTION

Meaning of Distribution

The word 'distribution', says Taussig, 'in the sense commonly attached to it in economic writings, refers to the appointment of the income of a community among its several classes and members'. Distribution, like production, is a social phenomenon. If, as in the primitive stage of society, every one consumes what he himself produces, there need be no exchange, no price and no distribution. But with progress in civilization the economic life of man becomes more and more complicated. Individuals no longer produce each for himself or each in isolation from the rest. Instead, they combine and cooperate in bringing about a common result which satisfies their wants only indirectly. Each of the five factors contributes its share to the production of a commodity. But neither the contribution of each individual worker nor that of each individual factor is capable of being traced to any specific portion of the joint product. Hence it is evident that before each can claim a share in the common result or in that which is exchanged for it, a further economic process is needed—that of assigning to each individual member of the group his particular share of that which is obtained for the joint product. This is the process known in economics as 'distribution'.

Net Product

The entire product of an industry is, however, not available for distribution. A part of the total outturn or its money value must evidently go to replace the raw materials used up in the course of manufacture. Another part, it is equally evident, is to be set aside with a view to make good the loss in value of the fixed capital, such as buildings, machinery, etc., which must wear out either through use or through efflux of time. It is the remaining portion only which is available for distribution. Thus, if a textile factory turns out cotton goods worth

Rs. 1,00,000 a year, a part of it, say Rs. 25,000, will go to replace raw materials and another part, say Rs. 5,000, will have to be set aside for depreciation. So the remaining sum, Rs. 70,000 only, is available for distribution among those who have contributed to the manufacture of the cotton goods.

The total value of the whole outturn, viz. Rs. 1,00,000, is called the 'gross product', while the net amount available for distribution, viz. Rs. 70,000, is called the 'net product'.

Shares in Distribution

Everybody who in any way contributes to the final result is entitled to a share in distribution. As there are five factors of production and as every one of those who contributes to the final result belongs to one or other of these five classes, it is convenient to divide the subject of distribution under five heads, corresponding to the five factors of production. The share that goes to land is called 'rent'; the share that goes to labour is called 'wages'; the share that goes to capital is called 'interest'; the share that goes to organization is called 'salaries'; and the share that goes to enterprise is called 'profits'.

It is however not to be supposed that the income of every individual is derived exclusively from one or other of these five sources. As a matter of fact, it may be, and very often is, made up of more than one kind of remuneration. It may be that an individual performs only one kind of service but there may be another who performs different kinds of service. Consequently while the income of the former will be made up exclusively of one element, the income of the latter will consist of more than one element, corresponding to the number of the types of service he renders. Thus, while the income of a manual worker is made up exclusively of wages or of a landowner of rent, that of a managing proprietor is made up of interest, salary and profits since he supplies not only capital but organization and enterprise also. Similarly, the income of a man who himself cultivates his own land with his own capital will be made up of all the five kinds of remuneration. It may be that the individual receiving a mixed income makes no distinction between the different elements in it; nevertheless, they are quite distinct from one another and demand separate treatment.

The Principle of Distribution

The remuneration that goes to every one of the five factors is governed by a variety of causes by no means the same in every case. Moreover, the rate differs not only in respect of members of different groups but also in respect of members of the same group. In fact, there is a wide variety in the incomes of individuals in any one group. In spite of these difficulties, however, and leaving them out of consideration for the present, it is possible to lay down a general principle of distribution which will hold good so far as a normal return for members in any one group as a class is concerned. As Chapman says, 'the theory of the payment made for any one agent in production is, in essentials, identical with the theory of the payment made for any other agent in production'.

The payment that is made to any one of the factors is made for the service it renders. The services rendered by the different factors are by no means of the same kind ; yet they are similar in this that like commodities each one of the services has got a market price. So the share that goes to each one of the factors is determined, like the price of a commodity, by the conditions of its demand and supply. The buyer, viz., the employer of the service, has a maximum price beyond which he will not go and the seller, viz., the person who supplies the service, has a minimum price less than which he will not accept. Ultimately the price paid for the service of any one agent in production is determined, like the price of a commodity, between these two limits, and at the point where equilibrium is reached by the interaction of demand and supply acting and reacting upon one another through price-changes. As in the case of a commodity, so in the case of any one of the factors of production, the price at any given time and place measures both the marginal productivity and the marginal supply price of the factor in question.

RENT

The Meaning of Rent

The word 'rent' is used in more than one sense. In popular usage 'rent' is commonly restricted to the price which the owner receives for the use of land, houses and other durable goods loaned, rented or hired to another. In this sense 'rent' means hiring charge.

In economics, however, 'rent' is used in a different sense. By some economists 'rent' is regarded as being due to the differences in productivity of different areas of land. But it is evident that the mere possession of a differential advantage cannot give rise to rent unless land of a superior quality is so limited in extent as not fully to satisfy the demand for it. On the other hand, even if there were no difference in quality and land were all of the same grade, rent would still emerge if the supply were so limited as to push cultivation beyond the point of diminishing returns. So it is not mere differential advantage, but the limitation of supply as well, which gives rise to the problem of rent. Thus interpreted, rent becomes associated with land of both superior and inferior quality as well as with those other objects the supply of which cannot be increased by human effort. The term 'rent', therefore, is generally associated with all the gifts of nature and refers to the income derived from their ownership. As Marshall says, 'the income derived from the ownership of land and other free gifts of nature is commonly called rent'.

This restricted meaning of the word 'rent' differs from its popular meaning inasmuch as in its economic sense rent does not include the payment for the use of houses and other durable goods the supply of which though, for the time being, limited, may, nevertheless, be increased by human effort. Again the popular conception of rent implies the relation of tenant and landlord but such relation is not essential to the idea of rent in its economic sense. As a matter of fact the owner of a natural agent, say land, may himself put it to some productive use, or he may let it out to a tenant. In either case, he derives an income which we call 'rent'.

Economic Rent and Contract Rent

'Economic rent' measures the surplus secured by those producers who have advantages over the marginal producer. A producer is said to be at the margin of cultivation when he gets just normal returns for the capital and labour employed. When land of an inferior quality is cultivated along with land of a superior quality, a difference in product is inevitable. But a difference in return would arise even though all land were of the same quality, provided that capital and labour had to be applied to particular pieces under conditions not equally favourable. In either case, there comes a stage where the producer is just remunerated for all his expenses incurred on account of both capital and labour. This is the 'marginal stage' and a producer at this stage is the 'marginal producer'. Every other producer, who is above that margin, will secure an additional amount over and above that which is secured by the marginal producer. This additional amount is called the 'producer's surplus' or 'economic rent'.

'Contract rent' refers to the amount paid by the tenant to the landlord for the use of land. When land is let out to a tenant, it is he who secures the surplus or economic rent. In consideration of this the tenant agrees to pay an amount, ordinarily in money, to the landlord. As this amount is determined by an agreement or contract between the landlord and the tenant, it is called 'contract rent'.

The Determination of Contract Rent

The contract rent, or rent paid by the tenant for the use of land to the landlord, is of the nature of the price paid for a commodity and depends exactly in the same way on conditions of both demand and supply; the tenant represents the demand side, and the landlord that of supply. The price which a tenant may be induced to pay will be determined by his estimate of the productivity of land. But it cannot exceed his estimate of the surplus or economic rent, for in that case cultivation would become unprofitable to him. The maximum price of a tenant is therefore measured by his estimate of economic rent. This maximum price, it is evident, is not the same for the different pieces of land or to the different cultivators. It is higher for better land, and lower for land of a poorer quality. Again, the different cultivators are not equally skilful, nor are they likely to put the land into exactly the same use.

On the other hand, the landlord has a price below which he is not likely to go. He would rather cultivate the land himself, or put it to some other use. His minimum, too, is measured by his estimate of the surplus or economic rent, but on the basis of average conditions.

Contract rent, like the price of a commodity, is fixed between these two points—the tenants' maximum and the landlords' minimum. If the demand happens to be greater than the supply, the rent is likely to approach the maximum of the tenant most eager for land. If, on the other hand, the supply is greater than the demand, the rent is likely to be very near the minimum of the landlord. The demand for the use of land generally increases with a rise in the price of agricultural products and decreases with a fall. Hence a rise or fall in the price of agricultural produce lead, respectively, to a rise or fall in rent.

The above discussion naturally leads to the conclusion that under normal conditions of demand and supply contract rent would very nearly approximate to economic rent. This however holds good only under certain conditions. For it is presupposed that either party to the contract has as much freedom as the other, and that either of them is equally skilful in bargaining. As a matter of fact, the landlord may have no alternative to letting his land on hire, or he may have less of bargaining capacity than the tenant. On the other hand, the tenant may have no choice of occupation, or he may be lacking in tact and resourcefulness. In the former case, rent may be much below, and in the latter, much above the true competitive rent. Further, the full play of competition may also be held in check on account of existing custom, or some sort of personal affection between the tenant and the landlord.

Rent in India

In pre-British India rent was usually paid in kind. It was mainly fixed by custom and varied little from generation to generation. Rent was generally low because there was a relative scarcity of tenants owing to internecine wars which had depopulated the country. Moreover, due to the absence of security the landlord had to count upon the assistance of his tenants for defensive purposes.

A change, however, set in with the settled conditions that came to prevail with the establishment of British rule and the economic transition that followed. The landlord lost all personal interest in the welfare of his tenants while the increase in population due to the prevailing peace and security led to an increasing pressure on land. For all these reasons rent which had now come to be paid in money began to rise above the customary level. The rise in rent was, however, not everywhere in keeping with competitive conditions because there could be no competition between a greedy landlord and a necessitous tenantry, with its proverbial ignorance and low standard of living. The landlord had the situation entirely in his own hand so that in certain parts of the country rent went beyond what it would be under competitive conditions. The rack-renting that came to prevail called for the intervention of Government. In Bengal, the United Provinces, the Central Provinces, and Madras, series of enactments were passed with a view to protecting the helpless ryot in the enjoyment of his customary rights and to preventing arbitrary increase in rent or eviction at will.

At the present time, therefore, rent in the zemindary tracts of the provinces of Bengal, the United Provinces, the Central Provinces, and Madras, is determined less by competition than by legislation which, however, enforces the existing custom. Custom, therefore, is still a predominant factor in the determination of rent in rural areas. In urban areas, however, and in the ryotwari tracts and provinces rent is determined mainly by competition and is of the nature of contract rent in its proper sense.

Rent of Building Sites

Hitherto we have been speaking of land used for agricultural purposes only. But land is also used for building purposes. In towns and cities land is used almost exclusively as sites for building. The rent of building sites is determined in the same way as that in which the rent for agricultural land is determined. But whereas the chief advantage of agricultural land lies in its fertility, the main advantage of building land depends on its situation.

Unearned Increment

Another peculiarity of building sites, especially in towns, is the phenomenal rise in their value due to what is called 'unearned increment'. The value of land—agricultural as well as urban—tends to increase with the increase of population. But for various reasons the increase in value is far more marked in the case of urban than in that of agricultural land. During the last hundred years or more, land values in towns and cities, particularly in the highly industrialized countries of Europe and America, have increased in enormous proportions. The fortunate owners of the city sites have, in most cases, grown immensely rich. But this windfall in their fortunes was in no way due to any labour or sacrifice on their part: it was due solely to the growth and progress of the community. It is an increment in value which they themselves do not earn and is therefore called 'unearned increment'. 'Unearned increment', says Chapman, 'is the accession to the value of things which is the product of social growth or social progress'. It is most clearly visible in the case of land, and has, in that connection, been one of the causes of the existing inequalities of wealth.

Wages and Salaries

'Wages' have been described as the remuneration of labour, and 'salaries' as that of organization. Both however are payments made for active assistance rendered in production. Consequently, there is no important economic difference between the two, though the word 'wages' is frequently used with reference to the payment made to those who contract to work by the piece, or by the day, week or month, the word 'salary' being restricted to the payment made to those who contract to work by the year. It has, therefore, been suggested that the word 'wages' be used in a broader sense to include both wages and salaries. Whatever differences there may be in the meaning of the two terms, there is no difference in the manner in which they are fixed. Salaries are determined exactly in the same way in which wages are determined.

The Determination of Wages

Like the value of a commodity, the value of labour, viz. wages, also depends upon the conditions of its demand and supply. The demand for labour arises from the demand for articles made by it and depends partly upon the number of articles produced and partly upon the price of such articles. The productivity of labour, like the utility of a commodity, determines its price on the demand side, that is, the maximum that an employer can pay. Hence there is nothing like an unlimited demand for labour because there is a limit up to which additional labour can be profitably employed in any industry. The demand for any commodity is, after all, limited ; further, owing to the law of diminishing return there is a limit up to which operations in a particular industrial unit can be increased because the advantages gained in one direction are likely to be more than offset by difficulties raised in another. So a stage is bound to appear when, before a particular labourer is employed, the employer is in doubt as to whether he should or should not be employed. This last labourer employed is the 'marginal labourer' and the contribution he makes to the production of a commodity is the 'marginal productivity' or 'marginal worth' of labour engaged in that industry. The wages of labour of any particular kind are determined, on the demand side, by its marginal worth expressed in terms of money. As in the case of commodities, so in the case of labour, the demand is influenced by price, viz. wages. The demand for labour increases when wages are low and decreases when wages rise.

On the supply side, there is nothing like an unlimited supply of labour of any kind. The supply of labour depends on a number of conditions. In the case of unskilled labour, the supply is effectively governed by the standard of living and the agreeableness or disagreeableness of occupation. In the case of skilled labour, in addition to these two causes, the expenses of education and training also count. All these conditions taken together or separately may be said to set a supply price for labour, just as a supply price is set for a commodity by its cost of production. This is the minimum which a labourer can accept. The supply price however is not the same for all labourers. Hence at a given wage the tendency will be for as many men to go into a particular occupation as can do so with advantage to themselves. Eventually the man is reached whose supply price will just equal the wages offered. He is the man on the margin and his supply price is the 'marginal supply price' of labour belonging to that grade. So the supply of labour, also, is, it is evident, affected by price, that is, wages. When wages are high, the supply increases, but it decreases as wages tend to fall.

Wage is ultimately fixed at a point where the marginal worth of labour will coincide with the marginal supply price, in other words, the number of labourers required for services will equal the number of labourers offering their services. The equilibrium is reached in the same way as in the case of commodities, through higgling and bargaining between the two parties but between the two limits, set by the employers' maximum and the labourers' minimum.

Trade Unions

In the above discussion it has been tacitly assumed that both the employers and the labourers are on the same footing in respect of their bargaining skill as well as of the strength of desires—of the employers for labour, and of the labourers for employment. As a matter of fact, however, neither of the two assumptions is correct, particularly so far as big business is concerned. Labourers are employed not in mass, but in units. Without concerted action an individual labourer is sure to be weak as a bargainer, because he is lacking in reserve fund and cannot afford to be out of work for a long time. On the other hand, to an employer who is engaging men in hundreds or thousands, it is almost immaterial whether one man goes away or stays. Further, the labourer, as Taussig points out, is like the seller of a perishable commodity. If a man is out of work for some time, so much of his earning power is lost once for all.

All these disabilities call for concerted action through some form of organization among labourers. So in advanced countries labourers in the same or allied trades are organized into what is called 'Labour Unions' or 'Trade Unions'. The union collects funds from all its members and applies them, in the first place, to support members who cannot secure suitable employment, and, secondly, to give certain provident benefits to members in need. Thus an individual labourer is afforded better chance of holding out and his power of bargaining through the union enables him to secure fair wages. Trade unions also help to improve the conditions of labour in other directions.

But the trade union movement is not without some unwelcome features, also. The hostile attitude of the unions towards the introduction of labour-saving improvement and machinery is a menace to satisfactory progress in industry. The resort to violence and sabotage can scarcely be supported. Finally, the peril that underlies the labourers' right to strike can be best exemplified by reference to the General Strike in England which necessitated the passing of the Trade Disputes Act of 1927.

INTEREST

The Definition of Interest

Interest is the remuneration for the services of capital. It may be looked at from two sides—the side of the borrower, and that of the lender or capitalist. The borrower employs capital in some productive undertaking from which he expects to derive some gain. The capitalist, on the other hand, creates capital by postponing the satisfaction of his immediate wants, or, in other words, by waiting. From the point of view of the borrowers, interest has been defined as 'the payment made by the borrower to the lender for the use of capital'. From the point of view of the capitalist, it has been defined as 'the price of waiting'. Both these definitions are correct so far as they go; but neither of them is complete. The one overlooks the side of the capitalist, just as the other overlooks that of the lender. The following is a complete definition given by Cassel: 'Interest is the price paid for an independent and elementary factor of production which may be called either waiting or use of capital, according to the point of view from which it is looked at'.

How the Rate of Interest is determined

The rate of interest, like the value of a commodity, is settled by the interaction of demand and supply.

The demand for capital arises from its use in productive undertakings. But all the constituent parts of capital are not equally advantageous ; some are more helpful than others. Under these conditions the rate of interest will be determined, on the demand side, by the least effective use of capital or its marginal productivity. The demand for capital is influenced by the rate of interest. If the rate of interest is low more will be borrowed, but people will generally borrow less if the rate of interest is high.

The supply of capital depends on various conditions, the most important of which is the offer of an inducement. As the creation of capital involves the postponement of present enjoyment, it is evident that, in most cases, accumulation will not be made unless there is the stimulus of a reward. But this stimulus need not be equally strong in all cases of saving. Though some saving may require the full current rate of return, yet much saving would be done even if the return happens to be lower. Under these conditions the rate of interest, on the supply side, will be determined by the rate of return required by those who are just induced to save, that is, the 'marginal savers'. The supply of capital also is influenced by the rate of interest. An increase in the rate will, on the whole, stimulate savings and increase capital ; while a decrease is likely to check accumulation, and will, therefore, lead to a diminution in the volume of capital.

The demand and supply of capital, like the demand and supply of a commodity, act and react upon one another till the equilibrium is reached. At this point 'the marginal productivity of capital suffices to bring out the marginal instalment of saving' and the rate of interest settles here.

Profits

The term 'profits' has been broadly defined as the income of the business man who receives neither stipulated wages, rent, nor interest. It is, in this sense, a composite income including wages, rent, and interest. When, however, these different elements are one by one eliminated, a part of it will still remain, which is neither wages, nor rent, nor interest. It is different from any of these. This peculiar element is regarded as 'profits' proper in a more restricted sense.

Thus interpreted the term 'profits' is limited to the remuneration of enterprise. It refers to the large and conspicuous gains which are almost invariably associated with the risks and uncertainties of able pioneering.

Profits differ from the other shares in distribution because of their uncertain character. In one year, the business man may earn nothing, but in another, he may earn huge sums. This is partly due to the fact that profits take only that which is left after the other shares have been paid. Profits thus appear as a residual income. But as Carver says, 'this does not mean that profits are a residual share in the sense that the others are determined independently by laws which affect them each alone leaving profits as a share which can be determined by no law except that of subtraction'. In fact, there can be no residual share in this sense because any change which affects one share will affect the other also in one way or another.

Further, profits, too, in a sense are determined, like wages and salaries, by the interaction of demand and supply. The reward for the services of enterprise is nowadays very high, because brains are scarce by nature. If there were a big supply of exceptional gifts the marginal effectiveness of enterprise would be considerably reduced and the rate of profits would therefore fall much below what it is now.

CHAPTER XI

CONSUMPTION

Introductory

Economics is a study of man's wants and the efforts he makes for their satisfaction. All men have wants ; and unless they make efforts their wants remain unsatisfied. In a primitive stage of society the satisfaction comes through the direct effort of man. But economic life becomes more and more complicated with the progress of civilization ; and in advanced societies men satisfy almost all their wants indirectly, that is, by producing what other people need and by exchanging their own commodities and services for those of others. The development of exchange gives rise to the use of money and credit. So the result of man's efforts which is judged by the income it brings in, is measured in terms of money. But the income which a man earns in the form of money does not, by itself, satisfy his wants. It has got to be spent to procure things which will ultimately satisfy his wants. Economics, therefore, includes an enquiry not only as to how a man gets his income, but also as to how he uses it.

The whole of a man's income is, however, not available for the direct satisfaction of wants. The various purposes to which the income of a man is applied include the payment of taxes to the Government, contribution to charity and religion, the provision for future wants or 'saving', and the satisfaction of immediate wants or 'spending'.

In the economics of consumption we study man's wants and the application of income for their direct satisfaction. Consumption, therefore, is concerned with the 'spending' as distinguished from the 'saving' of wealth.

The Meaning of Consumption

In popular usage the word 'consumption' suggests destruction. A dish of rice taken by a man is said to have been consumed because it no longer exists as rice. It is however evident that man cannot destroy matter any more than he can create it. In economics, 'consumption' like 'production' has a distinct meaning. Both of them refer only to utilities. Just as 'production' means the creation of utilities, so also 'consumption' means the destruction of utilities.

In a sense both production and consumption are two sides of the same thing. Every act of production involves an act of consumption, just as every act of consumption involves an act of production. In producing a thing, say a piece of cotton cloth, the raw materials and the tools and machines are consumed ; while in consuming a thing, say food, strength and energy are produced. Generally speaking, 'consumption', as Seligman says 'would then involve production just as production involves consumption'.

None-the-less, there is a real distinction between the two though it may not be easily seen. Production takes place when a new utility is created, when there is more wealth than before. But consumption adds merely to the personal qualities of a man, to his strength, vigour, energy, etc., which are not themselves wealth but means to wealth only. The aim of consumption is not however different from the aim of production, because both of them have the same object, namely, the creation of more wealth ; but there are cases in which they may differ as, for example, in the case of a man who is addicted to excessive eating or drinking which impairs rather than improves his capacity for production.

The Meaning of Want

In ordinary language the term 'want' is used in a somewhat vague sense as being synonymous with 'desire'. But in economics it has a more precise meaning. 'Want' in economics implies not a mere longing for a thing, but a decision to make some sacrifice—of means or effort—with a view to procure it. A beggar may have a strong 'desire' for a diamond, but this does constitute a 'want' inasmuch as it does not lead to the necessary effort or sacrifice. 'Want', therefore, in the economic sense, is that effective desire for a thing which leads to some effort or sacrifice sufficient for the end in view.

The Characteristics of Wants

Gide has described the following five characteristics of wants.

I. WANTS ARE UNLIMITED IN NUMBER

A man's wants grow in number with every year that passes by. In the primitive stage man has very few wants but as he rises in the scale of civilization his wants grow and multiply. The desire for change and the desire for display appear one after another and with them the demand for variety and distinction. He is no longer satisfied with one kind of food or dress but he wants them in different kinds. In this way wants go on increasing and increasing in number so that the number of wants of a man in an advanced community is practically unlimited.

II. WANTS ARE LIMITED IN CAPACITY

Though man's wants are unlimited in number yet his desire in respect of any particular object is limited to a fixed quantity of that object. Man wants food ; but however dainty a dish may be, a fixed quantity of it is enough to satisfy his want. So with every other want ; the quantity or the number required may be great in one case and small in the other, but there is always a limit beyond which no man will crave for a further quantity or number of the same thing.

The case of money, however, seems to appear as an exception, for no man is ever satisfied with the quantity in his possession. But money, we should remember, has a derived utility only. Its utility is derived from the utility of other objects which it can procure. Since the number of those other objects is practically unlimited, the limit of satisfaction in the case of money is almost indefinite. Still it is evident that a pice does not give a millionaire anything like the satisfaction which it gives to some poor beggar.

III. WANTS COMPETE WITH ONE ANOTHER

In most cases rival things attract our desire at the same time so that ultimately one of them predominates at the expense of the other or others. In going to a place one may prefer a railway journey or a motor drive or a carriage or any other rival means of communication. A man may go to a cinema; but instead of that he may go to a circus. A boy having a particular amount to spend may choose in favour of a fountain pen or a wrist watch.

IV. WANTS ARE COMPLEMENTARY

Wants, sometimes, go together, that is to say, they can be satisfied simultaneously but not separately. A single shoe, a carriage without a horse, or an inkpot without any ink—these are of no use to any one, because shoes are wanted in pairs, a carriage is wanted along with a horse and an inkpot with some ink.

V. WANTS, EVEN WHEN CONVENTIONAL, GIVE RISE TO HABITS

Wants, even when they are occasionally satisfied, tend to recur and pass into habits. Only a few years ago, very few people were accustomed to taking tea; but at present it has become so firmly established that even an ordinary working man considers the want of tea as scarcely less pressing than his more urgent wants.

The Law of Diminishing Utility or Satiable Wants

This law declares that the more we have of a thing, the less is our desire for having any more of it. This happens because man's wants though unlimited in number are yet limited in capacity. However delicious or pleasant a thing may be, a man will require only a limited quantity of it even though it happens to be available for nothing. With every increase in its quantity, his desires for it diminishes and sooner or later he begins to feel that he no longer wants any more of it. This tendency has been stated by Marshall in the following words: 'The additional benefit which a person derives from a given increase of his stock of anything diminishes with the growth of the stock that he already has'.

Suppose, for instance, that pineapples are selling at a rupee each. A man might spend even Rs. 5 for having one pineapple a year, if pineapples were scarce; while if pineapples were to be had for nothing, he would probably not care to have more than fifty in the year. But as it is he buys, let us say, five pineapples in the year. Now the utility of the first pineapple is, it is obvious, worth Rs. 5 ; but the utility of the next ones added in succession gradually descends to, let us suppose, Rs. 4, Rs. 3 and Rs. 2 respectively, till we come to the fifth pineapple—the last one—which he is just induced to buy at Re. 1 as he thinks that its utility is just worth a rupee and no more. So it is clear that the utility of the pineapple diminishes as its stock increases.

Total Utility

But it is to be carefully noted that though the utility of a thing gradually diminishes with the increase in its stock, its total utility nevertheless increases. By 'total utility' is meant the total satisfaction or benefit to be yielded by the whole stock. This is measured by the sum-total of the differing utilities of the different instalments added in succession. The total utility however increases at a diminishing rate, that is, it increases not so fast as the stock increases. The total utility of the five pineapples, in our example, is 5+4+3+2+1, that is, 15. With every addition it is increasing no doubt, but not in proportion to the increase in stock in which case it would have been 5×5, that is, 25.

Marginal Utility

We have seen that the man is just induced to buy the fifth pineapple because he thinks that the utility which it can give is worth just a rupee and no more. This is called the 'marginal purchase,' because the man is in doubt as to whether he should or should not purchase it, in other words he is on the margin of purchasing and not purchasing. The utility he derives from the marginal purchase is the 'marginal utility' of the pineapple to him. The marginal utility of pineapples in the example taken is Re. 1. But when there was only one pineapple in the stock, the marginal utility was worth Rs. 5. The marginal utility gradually decreases with the increase in stock. So with the increase in the stock of a thing its utility increases (so long as it increases at all) at a diminishing rate, that is, its marginal utility decreases.

The price which measures the marginal utility of pineapples is the price at which any one of the stock is bought and sold. Because, though the pineapples have differing utility when added one after another, possessed as a stock they have, each of them, the same marginal utility. Any one of them would be parted with on the same terms as another. So the price at which the last or marginal unit is bought or sold will determine the price at which any one of the stock is bought or sold.

Consumer's Surplus

It is seen that the price of a commodity is determined by its marginal utility, that is, the price paid for the last unit is the price for all the other units. But though the different units are bought at the same price, they do not give the same satisfaction to the purchasers. All the purchasers above the margin derive a greater amount of satisfaction as indicated by their willingness to pay even a higher price than the price actually paid which measures the satisfaction derived by the purchasers on the margin. So every purchaser above the margin derives a surplus satisfaction which is measured by the difference between the price that would be paid and the price that is actually paid. This is called the 'consumer's surplus'. As Marshall says, 'the excess of the price which he would be willing to pay rather than go without the thing, over that which he actually does pay, is the economic measure of this surplus satisfaction. It has some analogies to a rent, but is perhaps best called consumer's surplus'.

In the example cited above, we find that while the purchaser pays the same price for each of the five pineapples, the satisfaction he derives from each of them is different. In the case of the fifth pineapple, the utility, no doubt, is measured by the price actually paid, but in other cases there is obviously a difference between the satisfaction derived and the price actually paid ; this difference measures the consumer's surplus in each case. As the total utility of the five pineapples amounts to Rs. 15 and the total price to Rs. 5, the difference that is Rs. 10 measures the total consumer's surplus in our illustration. Consumer's surplus, therefore, is, as Taussig says, 'the difference between the sum which measures total utility and that which measures total exchange value'.

Classification of Wants

Satisfaction of wants of an individual depends on the amount of his income. A man with a greater income can satisfy a greater number of wants, while one with a smaller income can satisfy only a smaller number of wants. Hence arises the necessity of distinguishing wants according to the order in which they are generally satisfied. It is from this point of view that wants have been classified into:—

(1) Necessaries, (2) Comforts, and (3) Luxuries.

(1) NECESSARIES

'Necessaries' are things that are essential for the industrial efficiency of the class concerned. They include food, clothing, shelter, etc., sufficient not only for securing the continuance of a class, but also for keeping them in a state of efficiency. Again, there are things, such as tobacco, opium, costly dresses, etc., the use of which is so habitual or fashionable and hence necessary, that in order to obtain them an average individual would readily sacrifice a portion of his income, which would, otherwise, have gone to make for his efficiency. Necessaries, therefore, may be subdivided into three classes: (*a*) Necessaries for existence, (*b*) Necessaries for efficiency, and (*c*) Necessaries by habit or convention.

(*a*) 'Necessaries for existence' include those things such as a minimum quantity of food, drink, clothing, etc., which are absolutely necessary for the mere existence of the members of a class and its continuance through growth in number.

(*b*) 'Necessaries for efficiency' include things, over and above those included in the necessaries for existence, or things of a better quality, the consumption of which is followed by a more than proportionate increase in efficiency. These are food, clothing, etc., in larger quantities or in better qualities and some recreation also—all of which make for a higher standard of living. Any stinting in the consumption of things up to this limit is wasteful.

(*c*) 'Necessaries by habit or convention' or 'conventional necessaries' include things, such as opium, alcohol, tea, fashionable dresses, etc., which are not conducive to efficiency, but which are yet necessary, for having been habituated to their use an average man or woman will sacrifice even some of the necessaries for efficiency, rather than go without them.

(2) COMFORTS

'Comforts' are things which add to the efficiency of an individual but less than in proportion to their costs. These are good dress, well-furnished house, amusements, etc.

(3) LUXURIES

'Luxuries' are superfluous wants, the consumption of which does not add to, but may detract from, the efficiency of an individual. These include costly and showy articles, such as ornaments, delicacies, etc.

It is not to be supposed, however, that the above classification is based on anything like an absolute standard. The terms vary enormously in significance in different countries and even in the same country with reference to different classes, different individuals and different periods of time. In Bengal and Assam, e.g. people generally go bare-headed. They do not require hats which, however, are a necessary for the English people. A shirt is a necessary for a middle-class gentleman in India but it is a luxury for the poorer classes. To a smoker tobacco is a necessary but it is repulsive to a non-smoker. Some years ago a cloth-umbrella was a luxury, but now it is looked upon as a necessary. Thus the terms vary widely in accordance with the different standards of living which, after all, are variable. Further, as regards the necessaries for efficiency and comfort, price, also, is an essential consideration, because it is price which determines whether a particular thing is a necessary for efficiency, or a comfort. So there are numerous difficulties in the way of exact classification. The terms only roughly indicate the order which people, in general, have in their mind in arranging their wants.

Secondly, as regards the order in which people satisfy their wants, it would probably be safe to assert that, as far as necessaries for existence are concerned, all people generally make it a point to buy them, first of all. But beyond that there can be no generalization. It is primarily a matter of individual habits and tastes. Some are more inclined to save, and others to spend. Some will spend more on necessaries, others on comforts, and a few others will probably prefer to spend more on luxuries.

It is not uncommon for an Indian of the lower middle-class, a clerk, for example, to pass over comforts and even necessaries for efficiency in order to spend his surplus income on luxuries in the shape of fashionable clothes and expensive jewellery for his wife. Further, there are people who prefer to suffer privation even on account of the bare necessaries for existence in order to indulge in extravagant expenditure in other directions. An inveterate drunkard or an opium smoker will probably go in ragged clothes and even with empty stomach to satisfy his craving for a drink or for a smoke. No rule can, therefore, be laid down as to the order in which people satisfy their wants. The above classification simply points to a tendency which will generally hold good in the case of an individual of average intelligence and prudence.

CHAPTER XII

PUBLIC FINANCE

Its Meaning

The economic activities of an individual aim at the satisfaction of wants through the creation of wealth. Wealth is generally produced through the efforts of individuals ; such efforts are likely to be less productive in the absence of a favourable environment. The efficiency of productive effort depends as much on external as on internal conditions. A well-ordered State is indispensable from this point of view. The services it renders by providing for defence and the maintenance of order, by making laws and enforcing them, by promoting education and public health, and by improving the means of communications—are of the utmost importance ; and wealth production would be difficult, if not impossible, without them. The State, therefore, plays a very important, though indirect, part in the creation of wealth. It may take a direct part, also, in certain cases, as when it owns and manages the postal service, the railway, etc. The State, therefore, has numerous functions, the discharge of which calls for the expenditure of large sums of money. The more diverse and wide these functions, the greater must be the expenditure and the ampler the resources of the State. The subject of the expenditure and the revenue of the State has become so important in recent years that it has developed into a separate and independent branch of study, known as 'Public Finance'. It deals with the incomings and outgoings of the State, 'with the revenues of Government and utilization of those revenues'.

Sources of State revenue

A State may derive its revenues from various sources. State revenues are derived from :—

1. Lands, forests, etc., owned by the Government in proprietary right ;
2. Royalties and tributes ;

3. Commercial undertakings owned and managed by the Government, e.g. the Post Office, the Railway, etc. ;

4. Investments made by the State ; and

5. The income of private persons and corporations, in the shape of :—(*a*) Fees, (*b*) Fines, (*c*) Taxes.

Of these different sources, taxation, however, is the most important and the bulk of the revenues of a modern State is derived from deduction made from the income of the individuals composing it.

Taxation

'Taxation', says Taussig, 'involves compulsory levy'. It is distinguished from other charges made by Government in that the individual paying the tax receives no direct benefit from the State. The Post Office illustrates the payments which are different from taxes. Every individual writing a letter is bound to make some contribution towards its expenses, but no one, who does not write a letter, is compelled to make any payment. Roughly speaking, there is a correspondence between the payment made and the services received. But no such correspondence is visible between the services rendered by the Army or the Police and the payment made for their upkeep. As a matter of fact, their services are supplied freely to every individual ; but every one is required to make some contribution for their maintenance, irrespective of the benefits he derives, either directly or indirectly. The payment made for a postal card is in the nature of a price for a specific service ; so it differs from a tax which is a compulsory levy. A tax has, therefore, been defined by Bastable as 'a compulsory contribution of the wealth of a person or body of persons for the service of the public powers'.

Principles or Canons of Taxation

The distribution of the burden of taxation is, for the most part, guided by certain well-established principles or canons. Four such principles were laid down by Adam Smith, the forerunner of English economists. These are—the principle of ability, the principle of economy, the principle of convenience, and the principle of certainty. Besides these famous canons of Adam Smith, there are two other principles, those of variety and elasticity.

(1) THE PRINCIPLE OF 'ABILITY'

This is the first and the most important of all the canons of taxation. It means that the burden of taxation should be justly or fairly distributed over the different classes of people in the community. The poor should not be overtaxed, nor the rich undertaxed. Every individual should pay according to his 'ability to pay'.

But how is 'ability to pay' to be measured? Shall an individual pay just in proportion to his income, or more than in proportion? On this question there are, as Taussig points out, two fundamentally different answers: The one more conservative, the other more radical. The conservative view maintains the principle of 'proportion'; the radical view maintains the principle of 'progression'.

The supporters of 'proportion' in taxation hold that 'ability to pay' is proportional to income. They maintain that every individual should pay just in proportion to his income and no more, in other words, that there should be only one rate for people of both small and large income. The British income tax is a proportional tax because all taxable incomes, large as well as small, are subject to the same rate.

The advocates of 'progression', on the other hand, hold that 'ability to pay' increases more than in proportion to income. They maintain, therefore, that taxes should be progressive, in other words, that the higher the income, the higher should be the rate at which it should be charged. The income tax in India is a progressive tax, because all taxable incomes in India are not subject to one uniform rate as in England, but the rate rises as the income rises.

(2) THE PRINCIPLE OF 'ECONOMY'

This principle maintains, in the first place, that the cost of collecting the tax should be as small as possible. In the second place, it maintains that the tax should not injure the trade and industry of the country, nor discourage the consumption of wholesome articles. The customs duties in India may be cited as examples. They are most conveniently collected from the importers and fall more heavily on luxuries than on necessaries. Further, the import duties on machinery and articles used in indigenous industries are so light as not to hamper their growth and development. The excise duties, also, conform to this principle.

(3) THE PRINCIPLE OF 'CONVENIENCE'

This principle declares that the time and manner of the payment of the tax should be convenient to the payer. The land revenue in India roughly conforms to this principle.

(4) THE PRINCIPLE OF 'CERTAINTY'

It means that taxes should be levied in such a manner that every individual payer of the tax should be able to know definitely the time of payment, the manner of payment and the amount he has to pay. All the direct taxes, such as the income tax and the land revenue, satisfy these conditions ; but none of them is fulfilled in the case of an indirect tax such as the duty on cotton cloth or that on salt.

(5) THE PRINCIPLE OF 'VARIETY'

Equity demands that the tax-system should be framed in such a way that every one, high or low, rich or poor, should be liable to pay taxes in some form or other. As this is not possible when there are only one or two taxes, this principle maintains that taxes should be of various kinds, so that no one class may escape taxation while others are burdened heavily. Hence it is that we have taxes on incomes and other personal taxes side by side with taxes on necessaries.

(6) THE PRINCIPLE OF 'ELASTICITY'

This principle maintains that the tax system should be framed in such a way that the Government can expand or contract the revenue by adjustment of the rates of some of the taxes in the system. The tax system in India is elastic because by changing the rates of the income tax and the customs duties the

Government of India can easily expand or contract their revenues. As recently as November 1931, the rates of these taxes were increased in order to enable the Government to meet the budget deficit due to the economic depression.

Kinds of Taxation

It is usual to make a distinction between direct and indirect taxes, though the distinction is no longer regarded as being based on scientific foundation.

A 'direct tax' is a tax the burden of which falls upon the person who pays the tax. It is levied directly upon the income and property of the individual. The income tax, the super tax and the land revenue are some of the examples of direct taxes in India.

An 'indirect tax' is a tax the burden of which is expected to be shifted or transferred to others by those who first pay it. It is levied on commodities, services or trades. The tax is added to the price of the service or commodity in question and is ultimately realized from the actual consumers. The 'salt tax' in India is a good example of this. The tax is levied on the manufacturers or importers of salt ; but it is expected that they shall indemnify themselves by shifting the tax to the consumers in the shape of higher prices. Import and excise duties are other examples of indirect taxes in India.

Economists differ in their views as to the use of indirect taxation as a means of securing revenue. That indirect taxes fall more heavily on the poorer than on the richer classes is beyond question. On the other hand, it is equally plain that it is impossible to reach the poorer classes by direct taxes alone. Hence it is maintained that a tax system should include both the direct and the indirect taxes so that every individual, rich or poor, may contribute something towards the expenses of the State.

An opposite view is, however, held by others, according to whom all taxation should be laid upon surplus, since surplus, in their opinion, is the only measure of the ability to pay. They denounce all taxes on commodities and other indirect taxation and propose a reformed income tax which should remain the chief instrument for the collection of revenue.

Comparative Merits and Drawbacks of Direct and Indirect Taxation

The great merit of direct taxation is that the individual paying taxes is conscious of his contribution to the income of the State. So he comes to take a direct interest in the way in which the State's revenue is raised and is allotted for the various heads of expenditure. Secondly, the principle of progression can be applied only in relation to direct taxes.

The greatest drawback of direct taxes lies in the fact that they are irritating to the tax-payer and consequently make tax collection a disagreeable task. Secondly, the assessment of a direct tax involves serious difficulties. In the next place, the poorer classes of the community cannot be reached by a direct levy since it involves an enormous cost of collection.

The chief advantage of an indirect tax is that the payer is not conscious of his contribution to the State's income. Hence it gives rise to no discontent in the minds of the tax-payers. Secondly, the poorer classes of the community can be reached only by indirect taxation. Thirdly, indirect taxes are easier to collect than direct taxes. Lastly, indirect taxes can be levied or increased with the least possible protest and outcry.

The great drawback of an indirect tax is that it leaves the poorer classes entirely in the dark as regards the revenue and expenditure problems of the State. As these people cannot realize that they have to pay for any extra expenditure in which the State may be involved, they generally clamour for more lavish expenditure of public revenues. Secondly, indirect taxation, so far as it relates to 'necessaries', is likely to fall more heavily on the poorer, than on the richer, classes.

PART II

INDIAN ECONOMICS

CHAPTER I

NATURAL ENVIRONMENT AND SOCIAL STRUCTURE

Natural Environment

The activities of man, particularly those in relation to his economic life, are determined largely by his natural environment. 'The physical environment', as Dr. Banerjea observes, 'is in reality, the basis of all economic activity'. As regards her physical features and natural resources India occupies a favourable position in comparison with most other countries of the world. Judged by her extent, the diversity of her physical conditions, and the variety of her natural resources India has aptly been described as a 'subcontinent of Asia'.

Physical Features

With a total length of about 2,000 miles from north to south and a total breadth of about 2,500 miles from east to west India comprises an area of about 1,800,000 square miles. The essential features of her environment are the coast line, the mountain ranges, the river systems, the rainfall, the climate, and the character of her soil.

The extensive coast line of India stretches over a length of about 5,000 miles and offers enormous scope not only for coastal trade but also for trade with countries beyond the seas.

On the north the Himalayas, with a length of about 1,250 miles and a height reaching in some places to above 28,000 feet, prevent the monsoon from passing out of India and exercise a remarkable influence on the rainfall of the country. They are the source of the three great river-systems of India, the Indus, the Ganges, and the Brahmaputra. The rivers included under these groups irrigate an extensive area of land and some of them are navigable throughout the year. The Vindhya range separates the Indo-Gangetic plain from the rugged peninsula of the Deccan which is flanked on the west and the east by the Western and

Eastern Ghats respectively. The steep hills of the Western Ghats nearly touch the coastal fringe and form a complete wall, with the result that the rivers of the peninsula, with only two exceptions, the Nerbudda and the Tapti, flow in an easterly direction. Further, these hills act as a barrier to the extension of monsoon clouds rendering the inland region peculiarly liable to droughts and famines. The hills on the east are, however, lower and leave a comparatively wider strip of land on the sea side most of which is cultivable. The barrier they create to the progress of the monsoon winds is by no means impenetrable and consequently the deltas of the Godavari, the Krishna and the Cauvery are as famous for their fertility as the delta of the Ganges and the Brahmaputra. The rivers in the peninsula offer very little scope for navigation because of their wild current and rocky beds. There are, however, vast possibilities for the development of hydraulic schemes.

The normal rainfall in India varies from about 450″ at Cherrapunji in Assam to about 6·7″ in Sind. It is determined mainly by the two air currents known as the south-west and the north-east monsoons. The south-west monsoon commences by the middle of June and spreads gradually up to September. It gives rains to the whole of India except Madras. The rainfall is generally heavy on the hills and scarce in deserts. The north-east monsoon begins to flow in October and gives rain particularly to Madras. There is no regularity of the rainfall and the amount varies from time to time and from place to place, depending mainly on the force and direction of the monsoon currents. The monsoons, therefore, exercise an enormous influence on the economic conditions of the country as well as on the character and outlook of her people.

The climate varies greatly with rainfall and proximity to the coast. In Northern India there are on the whole two distinct seasons—the summer and the winter, and the severity of both heat and cold increases as one travels north-westward till the frontier is reached where the heat in the summer is as unbearable as the cold in the winter. In Bengal and Assam, on the other hand, there is no excessive heat and the winter also is mild. The climate in the peninsula is usually hot and variations in temperature are less marked. The semi-tropical climate of India is supposed to produce in her people a lack of vigour for strenuous and sustained work of any kind whatsoever.

The soil in India in most cases is fertile and favourable to the growth of various crops and vegetables. The Indo-Gangetic plain is a wide, fertile and alluvial plain with porous and light soils rich in chemical properties. The alluvial soils in the peninsular deltas are, however, non-porous, clayey and of dark colour. The alluvial soils are suitable for the growth of a variety of crops such as rice, pulses, sugarcane, etc., while the soils in some of the remaining portions of the Deccan are favourable to the growth of cotton, wheat and millets. In the rest of India the soil is crystalline and is, on the whole, deficient in respect of fertility. The soil in India is, however, generally dry and consequently the prosperity of the people depends mainly on the amount and distribution of rainfall.

Natural Resources

India possesses an almost unique position in respect of her mineral resources which hold out possibilities for the development of numerous industries. These include coal, iron, petroleum, manganese, mica, wolfram, saltpetre, gold, lead, silver, zinc, copper, aluminium, precious stones, rock-salt and building materials of various kinds. Coal is found mainly in Bengal, Bihar and Orissa, Assam and the Central Provinces ; iron in Bihar and Orissa and Bengal ; petroleum in Burma and Assam ; manganese in the Central Provinces ; mica in Bihar and Orissa ; saltpetre in Bihar and Orissa, the United Provinces and the Punjab ; gold in Mysore ; lead, silver and zinc in Burma ; copper in Bihar and Orissa ; and rock-salt in the Punjab.

The vast extent of the country and the diversity of her physical conditions facilitate the growth of a wide variety of vegetable products suitable for both tropical and temperate regions. The chief tropical and semi-tropical products are : rice, coffee, millet, sugarcane, jute, spices, cotton, tobacco, tea and several kinds of fruits. The chief products raised in the temperate zone include wheat, barley, maize and pulses of various kinds. The forests in India possess an enormous supply of timber, fuel, bamboo, and various kinds of useful grass, and medicinal plants and herbs.

The variety in physical conditions has also produced a variety in animal life. The different species include cows, buffaloes, donkeys, camels, goats and sheep. There is also a wide variety of wild animals and birds in the Indian forests. Fish which is an important item in the dietary of the people of Bengal and Assam is found in plenty in the Indian rivers and seas.

The above short sketch will suffice to indicate that nature has, on the whole, been lavish in her gifts, so far as India is concerned. The two great obstacles are the uncertain rainfall and the enervating climate. But they are by no means insurmountable and with systematic attempt for the development of her natural resources India bids fair to rank amongst the prosperous countries of the world.

Population

The total population of India (including Burma) according to the 1931 census is 352,837,778 (males 181,828,923, females 171,008,855). Hindus number 239,193,635, Mahomedans 77,677,545, Buddhists 12,786,806, Animists 8,391,065, Christians 6,296,763, Sikhs 4,335,771, Jains 1,252,105, others 2,904,088. The total for British India (including Burma) is 271,431,549 (Hindus 177,726,509, Mahomedans 67,020,443, Buddhists 12,693,089, Animists 5,892,530, Christians 3,866,660, Sikhs 3,220,997, others 1,011,321). The total population of Bengal is 50,114,002 (Hindus 21,570,407, Mahomedans 27,497,624, Animists 528,037, Buddhists 316,031, Christians 180,299, others 21,604). The total population of Assam is 8,622,251 (Hindus 4,931,760, Mahomedans 2,755,914, Animists 711,432, Christians 202,586, others 20,559).

The total population of the Indian States and Agencies is 79,098,008 (Hindus 61,467,126, Mahomedans 10,657,102, Animists 2,498,535, Christians 2,430,103, Sikhs 1,114,774, Jains 798,536, others 131,832).

The density of population for the whole of India is about 190 per sq. mile. The density in Bengal is the highest being very near 650 per sq. mile while the lowest density is found in Baluchistan with an average population of 8 per sq. mile.

Of the total population about 90 per cent. live in rural areas and only about 10 per cent. in towns. About 73 per cent. are supported by agriculture and about 10 per cent. by industries.

Growth of Population

Ever since 1872 when the first census in India was taken the population has been steadily growing in number. The figures of 1931 record an increase of a little more than 10 per cent. over the total of 1921. The total population according to the census of 1872 was 206 millions while the total to-day is 352 millions. During these sixty years, therefore, the total population in India has increased by about 70 per cent. This low rate of increase is, however, by no means in keeping with the normal reproductive power of the Indian people which at its lowest is scarcely lower than 30 per thousand per annum. The discrepancy between the figure indicating actual increase and that indicating potential increase is accountable by the fact that the high birth-rate in India is accompanied by a high death-rate which is only slightly lower than the former. The tendency to grow and multiply is constantly held in check by the recurrence of famines and epidemics which sometimes carry off millions of people at a time.

Problem of Over-population

The fact that high birth-rate is accompanied by a high death-rate signifies that under existing conditions the population of India is constantly pressing on the means of subsistence so that the people fall a comparatively easy prey to plagues and famines. This means that the limit of optimum population which can be supported by the existing social and economic organization has been passed and the country is suffering from over-population. There are, however, people who believe that the existing misery is due not so much to the increase in number as to the failure to develop the country's resources. But it is apparent that those who maintain such views fail 'to realize that very severe population pressure may arise while there is still the possibility of greater total production but not of greater production per head under existing conditions'. A liberal estimate of the number that India might support under different conditions or of that which she is likely to be able to support at some future date can scarcely afford any relief for the miseries with which she is at present afflicted. The existence of a high birth-rate accompanied by a high death-rate points unmistakably to the pressure of numbers and 'it seems', as Thompson points out, 'merely a useless quibble to say that there is not over-population because under other imaginable conditions the country could support a larger population at better standards of living'.

Remedies

Of the various remedies suggested for the evil of over-population the most important are an improvement in agriculture and industry, emigration and birth-control.

As regards improvement in agricultural production it should be remembered that India offers very little scope for further extension in cultivation. Production can no doubt be increased by the application of better methods, but numerous difficulties will have to be solved before a reasonable increase is at all possible. Hence so far as the immediate future is concerned there is very little hope that an increase in agricultural wealth will afford a satisfactory solution for the problem of over-population.

Though there is ample scope for the development of large-scale industries in India their progress must necessarily be slow. Further, the problem for the present is to find steady employment for the masses of people, and the introduction of factory industry on a large scale, even if it were possible at this stage, would offer no solution for it. The immediate effects of industrialization are more likely to add to the pressure on land than to relieve it. It has been suggested that the improvement of cottage industries like hand-spinning and weaving will provide the people with adequate means of living. Such industries will no doubt give occupation to the people in spare hours and also add to their income either directly or indirectly. But the contribution they are likely to make to the present income of the people will never be so great as to relieve the pressure of increasing population.

There are indeed lands in other parts of the world which could absorb a very large number of Indians ; but under existing circumstances nearly all of them are closed to Indian emigrants. The Indian Emigration Act of 1922 prohibits indentured emigration, while all the Dominions and most of the

Colonies have practically prohibited the entry of free emigrants from India.

Any rapid improvement of the situation, under existing conditions, is therefore almost unthinkable and the only remedy seems to be in the adoption of birth-control measures. There are those who would prefer the adoption of late marriage and the exercise of moral restraint to the use of contraceptives. But the following arguments seem unanswerable:—(1) Late marriages (i.e. 'late' not as opposed to 'child marriages' but in the sense of late post-puberty marriages) bring with them a flood of moral evils and inherited disease. Economic circumstances are bringing them about in Western countries but it is generally recognized that they have most disastrous effects. (2) Their effects on the lessening of the birth-rate cannot be sufficient, for a child is produced by a single act. (3) Similarly a moral restraint which would really diminish the birth-rate must be continuous and permanent over a long period of years. (4) Such moral restraint is only possible without serious danger to mental health to a few highly-spiritualized persons. (5) Those classes amongst whom it would be most desirable would be the very classes who would never exercise it. Thus we are driven ultimately to the advocacy of artificial methods of birth-control as the only practical remedy against the danger of over-population.

The use of contraceptives has been objected to on grounds of morality, race-deterioration, and race suicide. The moral objection seems merely to side-track the issue. There is some substance in the fears of eugenists that it will be precisely those who are most fit to produce children who will practise birth-control, but the remedy is to be found in a wide diffusion of birth-control knowledge and in teaching to all as an ethical duty that they should not bring into the world more children than they can provide for. Fear of race suicide will be justified if one of two rival communities adopts birth-control whilst the other does not. A noble world order can, however, scarcely be founded on communities deliberately breeding against each other and moreover it is unlikely that as birth-control practice grows it will affect certain communities only and leave others untouched.

The Caste System

Mr. Blunt in his 'Caste System of Northern India' summarizes the evolution of caste as follows:—'At all times Hindu society has been divided into classes of differing rank, with a substratum of tribes too alien and too humbly placed to be within the social pale, and a cross-division of functional groups. This system, which existed in embryo during the Vedic period, has developed through the ages under the influence of circumstances which combined to make the groups endogamous, until it became the caste system as we know it. Amongst these circumstances were:

(i) the juxtaposition, at several periods, of races different in blood, civilization, and especially colour:

(ii) the composition and system of the powerful trade guilds:

(iii) the influence of Hinduism, which attracted and assimilated the most diverse elements:

(iv) the huge distances of India, its political and other divisions, which prevented the growth of national feeling and drove men to unite into smaller groups:

(v) the influence of a sacerdotal order, able and willing to consolidate and regulate these multifarious groups: and lastly

(vi) the psychological attributes of the Indian, amenable to control and discipline, fearful of offending against custom, ready to submit to the coercion of guild council or Brahman lawgiver, to welcome the development of custom into law.

In short, the caste system did not spring fully developed into existence—it was a natural growth, the result of a process of evolution.'

According to the Hindu system of caste the whole course of a man's social and domestic relations were determined exclusively by his birth. Doubtless the rigidity of this system was at one time essential for the preservation of Hinduism, and even to-day there is much to be said in favour of some such more moderate form of caste distinction. The fathers of democracy in modern Europe believed that all children were similar at birth and only became differentiated through environment, but biological science now teaches us that this view is not true.

Most biologists indeed go so far as to say that the changes made in individuals by environment cannot be handed on to their children by physical inheritance, since the young inherit by birth from the stock from which they spring and never from the development undergone by their parents after the birth of these latter. There are, however, some biologists of distinction who hold that under certain circumstances acquired characteristics may be inherited: moreover apart altogether from the inheritance of characteristics the importance of a man's early environment on his later development is very great. Admitting, however, all that can be said in the light of present knowledge in favour of the importance of environment it remains true that physical heredity is also of very great consequence. The people in the West who to-day stress the practical importance of heredity are called Eugenists, and these dispute *in toto* the view that it does not matter how people intermarry and breed. It is to be noticed in this connection that even in a democratic country like the United States of America, some of the States prohibit legally miscegenation between white Americans and Negroes, and this prohibition is more justified than the other ways in which the Negroes have been turned in the United States into a caste of untouchables and deprived (practically) of their political rights. It is quite possible that in India to-day a wholesale mixture by universal intermarriage of the various classes and races would destroy the civilization of the country by reason of the resultant swallowing-up of the higher types by the lower. Caste feeling which is against such miscegenation is based on something more than mere prejudice and is not to be unthinkingly condemned.

On the other hand, however, the extreme rigidity and stereotyped nature of the distinctions created by caste are out of date now that caste is losing its economic and social significance. The economic aspect of caste is unsuited to large-scale production as it stands in the way of a correspondence between aptitude and function and hinders the mobility of labour and capital. Further, the caste system has in some parts of India degenerated into an engine of social oppression. Consequently caste as it exists in India at present is to be regarded as one of the essential causes of the economic and political backwardness of the country. It is, however, breaking down under the influence of Western education.

The Joint Family

Another characteristic feature of the Hindu society is the institution of the joint family. A Hindu joint family includes a number of members besides the husband, the wife and the children. The corporate character of a joint family is noticeable not only in respect of property and earnings but also in respect of consumption. 'The system', as Dr. Banerjea observes, 'is organized on the principle of subordination of all members to the head—not on co-operation or equality—of all members'. It has been the backbone of Hindu society and the basis of the Hindu law of succession and inheritance.

The joint family is supposed to encourage indolence and stifle individuality and energy. But it has its merits also. It ensures at least a bare subsistence for every individual so that no one is left at the mercy of circumstance. The widows, the orphans, the old, the infirm, and the weak are all taken care of and are given work suitable for their strength and capacity. Thus an enormous wastage of labour is saved and the State is relieved of the burden of maintaining a relief organization. Further, the joint family promotes the spirit of selflessness, fellow-feeling and obedience and thus makes for social harmony as opposed to social strife which generally follows in the wake of rank individualism. The system is, however, on its decline owing to the individualistic tendencies of the modern age and attempts should be made to retain it in a form sufficiently vital, yet more favourable to the economic needs of the time.

CHAPTER II

THE ECONOMIC TRANSITION IN INDIA

The Old Economic Order

The characteristic feature of the old economic organization in India was the predominance of agriculture over all other industries. Nearly 70 per cent. of the total population were supported by agriculture alone and the other occupations were by comparison insignificant. Owing to the prominence of agriculture the bulk of the people lived in villages, and towns were very few in number. Due mainly to the absence of adequate means of communication and to the insecurity of journeying from place to place each village in India was an isolated and self-sufficing unit having no connection with the world outside. The 'open-field' as opposed to the 'closed-field' system prevailed in agriculture which was in its most primitive condition. Industry was in its handicraft stage and was carried on according to the domestic as distinguished from the capitalistic system. The use of metallic money was rare; payment was usually made in grains which was also regarded as the standard of value. Division of labour was imperfect because of the limited size of markets, and the lives of villagers were regulated by status and custom as distinguished from contract and competition.

The Transition

The foregoing description, typical of India as of other countries in a similar stage of economic development, presents a striking contrast to the economic conditions prevailing in modern countries like England. In this latter group agriculture is but one of a number of important occupations, and the bulk of the people live in towns which depend on one another and on the world outside. Agriculture is conducted on more modern lines and industry is in its manufacturing stage. The use of metallic money is universal, the division of labour is more minute, the influence of status is non-existent and custom has been replaced by competition.

It should be noted, however, that the archaic character of the economic order was in no way peculiar to India and other backward countries. Even the highly developed countries like England had, at one time or another, to pass through similar conditions. In India, too, there are evident signs of a change having already set in, and the old order has been gradually yielding place to the new. The change, though remarkable in certain respects, is yet far from being complete and India, therefore, is spoken of as a country in the stage of economic transition.

Character of the Change

It goes without saying that a change from the old to the new order must, under any circumstances, result in some dislocation and consequent suffering for the people thereby affected. This has happened in every country passing through a period of transition. But the dislocation involved much less suffering in a country like England where the change was of an evolutionary character as it was brought about by forces generated within the country. The dislocation with which it was accompanied was due, no doubt, to the spread of large-scale production but since large-scale production grew and developed within the country itself, the large number of people thrown out in one direction were readily absorbed in another. In the case of India, however, the change has been of a revolutionary character inasmuch as it has been set in motion by forces largely foreign in their origin. The cheap machine-made goods which led to the decline of indigenous handicraft came from outside. Consequently, the displaced artisans were hard put to find out an alternative means of livelihood and were therefore forced to take to agriculture. Hence while England has been immensely enriched by the Industrial Revolution no such remarkable change is so far visible in the case of India.

Features of the Change

The most noteworthy feature of the change has been the breaking down of the isolated character of the village owing largely to the improvement and extension of the means of communication, especially the railways. The village no longer depends on its own resources. The dread of starvation due to the local failure of crops has been as completely dispelled as the fear of ruin from a bumper harvest. Goods produced in distant parts of the country or in distant lands are now available for the villagers and rural products find an easy access to foreign markets where they get a better price. The use of metallic money is almost universal and grains are rarely used either as medium of exchange or as standard of value. The influence of both status and custom is already on the wane and they are sure to lose their hold, status being replaced by contract and custom by competition.

No remarkable change is, however, noticeable in the organization of the agricultural industry. With very few exceptions, cultivation is still carried on according to primitive methods with primitive implements. Holdings are still scattered, while the decadence of village crafts has led to an increased pressure on land. Most of the rural industries have been very badly hit by the competition of factory-made goods ; but those that still exist have been benefited by the introduction of better implements and improved methods. A brighter picture is, however, afforded by the manufacturing industries which have been steadily growing and gaining in strength. Industrialization, be it noted, is not free from limitations ; yet there is, at present, an unmistakable tendency towards a steady development of manufacturing industries, though at a pace slower probably than what is ordinarily thought of or desired by the ardent advocates of rapid industrialization.

CHAPTER III

AGRICULTURE IN INDIA

The Importance of Agriculture

Agriculture is by far the most important industry in India. According to the census of 1931 India contains no less than 350 million inhabitants or about one-fifth of the entire population of the globe. Of this total about 90 per cent. live in rural areas and about 73 per cent. earn their living from agriculture. Besides providing the various crops which form the staple food of the people, agriculture, also, supplies the raw materials for numerous industries, such as cotton, jute, etc. The total area under cultivation is about 240 million acres.

Hence it is evident that the prosperity of the country is bound up with the prosperity of agriculture. A stimulus to agriculture will not only increase the food supply of the country but will also lead to a steady growth and development of industries. Further, it will increase the purchasing power of the masses, raise their standard of living and offer the most effective check to the growth of indebtedness as well as to the recurrence of famines. Trade, both internal and external, will flourish and with an increase in general prosperity, an increase in Government revenues will automatically follow. In short, agriculture holds the key to the economic progress of India.

Agricultural Products

The most important agricultural products in India are the various crops. Dairy farming, wool growing and animal husbandry exist only to a very limited extent. Among crops again food crops preponderate overwhelmingly inasmuch as about 80 per cent. of the total sown area is under food crops, the remaining 20 per cent. being under non-food crops.

Food Crops in India

Food crops include rice, wheat, barley, millets, pulses of various kinds, sugar, etc.

RICE

The most important crop in India is rice. India is the largest rice-producing country in the world. It covers some 80 million acres or over 30 per cent. of the total area under cultivation, with a total yield of about 30 million tons per year. It is grown in Bengal, which has over 20 million acres under rice, in Bihar and Orissa, Burma, Madras, the United Provinces, the Central Provinces, Assam, and Bombay. The average outturn of rice per acre in India is only 700 to 1,000 lbs. ; that is, hardly one-third of what it is in Japan, or about one-fifth of what it is in Italy and Spain. Rice, especially Burma rice, is exported in considerable quantities ; but its price in the world market is very low owing to its inferior quality.

WHEAT

Next in importance is wheat which covers more than 10 per cent. of the total sown area, with a total annual yield of about 10 million tons. India occupies the fourth place among the principal wheat-producing countries of the world. Wheat is the staple food of the peoples of Upper India. It grows mainly in the Punjab, the United Provinces, the Central Provinces, and Bombay. The average yield per acre is 575 to 760 lbs. ; or hardly one-third of the average outturn per acre in the United Kingdom or one-fourth of that in Denmark.

SUGAR-CANE

Sugar is probably an indigenous product in India. The area under sugar-cane, which is more than 2·5 million acres, is larger than in any other country in the world. The average outturn of sugar is, however, very low, and is only a little over one ton per acre, that is, less than one-fourth of what it is in Java or Hawaii. Sugar-cane is grown chiefly in the United Provinces, the Punjab, Bihar and Orissa, Madras, Bombay, and Assam. The question of introducing improved varieties of sugar-cane is engaging the serious attention of the Provincial Agricultural Departments as well as of the Imperial Council of Agricultural Research. An improvement in both quality and supply of the sugar-cane will undoubtedly give a great stimulus to the sugar industry in India.

Non-food Crops

Non-food crops include tea, coffee, tobacco, oilseeds of various kinds and fibres, such as cotton, jute, etc.

TEA

India is probably the largest tea-producing country in the world. The total area under cultivation comes to about 800,000 acres with a total annual yield of about 800 million lbs. The chief tea-growing tracts are Assam, which has more than 400,000 acres under tea, the Darjeeling and Jalpaiguri districts in Bengal, the Nilgiris in Madras, Dehra Dun in the United Provinces, Kangra Valley in the Punjab, and Travancore. About 90 per cent. of the total produce is exported.

COTTON

Cotton occupies a very important place among the agricultural products of India and is the principal fibre crop. It covers more than 25 million acres and gives an annual yield of about 600 million bales of 400 lbs. each. Cotton is chiefly grown in Bombay, the Central Provinces, Berar, Hyderabad, the Punjab, and Madras. India occupies the second place among the principal cotton-growing countries, but the average yield per acre is very low. It comes to only 80 to 100 lbs. of ginned cotton against 300 to 400 lbs. in Egypt. The Indian cotton is, also, inferior in point of quality. Cotton, however, is the only crop in India that has been best organized from the point of view of marketing, research and other means of improvement.

JUTE

Next to cotton among fibres comes jute. Though it occupies a relatively small proportion of the total sown area, yet its importance is easily recognized as jute is a monopoly of India. The total area under jute in 1930 was 3·5 million acres of which about 3 million acres were in Bengal, the rest being almost equally divided between Bihar and Orissa and Assam. In 1931, however, owing to the depression in the jute industry the area under jute was reduced by about 46 per cent. as compared with the total of 1930. The estimated area under jute in 1931 was about 1·8 million acres of which 1·6 million acres were in Bengal, Bihar and Orissa and Assam contributing the rest.

The Present Position of Agriculture in India

As indicated in the foregoing survey the present position of agriculture in India can hardly be regarded as anything like satisfactory. There has undoubtedly been an increase in production in recent years, but the increase has been mainly due to an increase in the area under cultivation. 'Only a small proportion of it', as the Report of the Royal Agricultural Commission points out, 'can be attributed to the higher yielding varieties of crops and it is doubtful if any appreciable increase in yield can be attributed to the adoption of better methods of cultivation or the increased use of machinery'. The following table taken from the United States Commerce Year Book of 1928 will illustrate the static condition of Indian farming and the lower productivity of Indian soil.

Pounds of Rice produced per Acre

Countries	1909–13	1921–25	1926	1927
Japan	2,163	2,350	2,256	2,510
U.S.A.	922	1,076	1,121	1,130
Java	932	881	918	970
India	957	864	834	805

The figures cited above relate to rice only; but our conclusion is not thereby affected as the same story will bear repetition in the case of almost every other crop in India.

Causes of Agricultural Backwardness and Suggestions for Remedies

There are numerous causes which account for the backwardness of Indian agriculture. Some of them arise in connection with 'land', some in connection with 'labour', others in connection with 'capital', and a few others in connection with 'organization'.

PROBLEMS OF LAND

The problems under this head can be considered from the point of view of (*a*) rainfall, (*b*) fertility, and (*c*) subdivision and fragmentation of holding.

(*a*) RAINFALL

The greatest handicap of agriculture in India arises in connection with her rainfall. Crop cultivation is not possible without an adequate supply of water. In the absence of a sufficient number of rivers, streamlets or other sources of perennial water supply, the Indian farmers depend largely on rain water. But unfortunately for the cultivators of this country Nature displays the greatest possible capriciousness in this respect. In the first place, there are tracts where there are scarcely any rains, others where the rainfall is scanty and still others where the rainfall though, on the whole, sufficient or even more than sufficient, is not always uniform. In the second place, rainfall is sometimes so excessive as to cause flood, erosion and waterlogging.

Steps have been taken by the Government with a view to remove the difficulty arising from the scarcity or uneven distribution of water by means of irrigation. But the works so far completed are yet inadequate for the total requirements of the country and it is doubtful whether irrigation will ever be able to meet them satisfactorily. Nevertheless, the utility of irrigation works is beyond question and further progress in this direction is the only practicable remedy against drought or scarcity of water.

As regards excessive rainfall the remedy lies in afforestation in areas where forests are scanty and in the exercise of a wise discretion in cutting down forests where they are plentiful. An adequate system of drainage should also be maintained so that rain water may easily find its outlets and spread gradually as it comes down.

(*b*) FERTILITY

Some time ago there was a keen controversy as to whether the soil in India had been suffering continuous exhaustion, or the limit of exhaustion had already been reached. It is, however, immaterial whether the one or the other of the two views is correct, as neither of them denies the essential fact that as a result of continuous cultivation the soil in India is extremely poor in respect of fertility.

The loss in fertility can be made good by the application of manures. The first thing that suggests itself in this connection is cow-dung. Unfortunately, however, cow-dung is used mostly as fuel as wood has become scarce and as the poor cultivator cannot afford to buy coal. The remedy lies in afforestation or planting of trees which, by providing the cultivator with wood, will release the cow-dung for manurial purposes. Cattle urine which is now rarely preserved may be profitably utilized in this connection. The practice introduced by Mr. Brayne in the Gurgaon district of the Punjab of depositing village sweepings and refuse in pits along with a proportion of cow-dung and of using the compost as a manure deserves wide recognition. Besides improving the fertility of the soil, it has the additional advantage of improving the sanitation in rural areas. Another cheap manure is night soil which is a valuable source of combined nitrogen. Here, also, the suggestion of Mr. Brayne to get the villagers accustomed to use pits and latrines with a view to preserve excreta is calculated to improve both cultivation and sanitation. The various possibilities of using green manures to advantage should be carefully explored and their prospects widely advertised by the Agricultural Departments. The development of oil-crushing industries should be promoted by Government and oilcakes in larger quantities should be made available to the cultivators. There are, besides, a number of artificial fertilizers, but they are costly and so it is needless to advocate their extensive use in the present circumstances as the cultivator can scarcely afford to buy them.

(*c*) SUBDIVISION AND FRAGMENTATION OF HOLDINGS

By 'subdivision' is meant 'the distribution of the land of a common ancestor amongst his successors in interest, usually in accordance with the laws of inheritance, but sometimes effected by voluntary transfers amongst the living by sale, gift, or otherwise'. 'Fragmentation', on the other hand, 'refers to the manner in which the land held by an individual (or individual family) is scattered throughout the village area in plots separated by land in the possession of others'.

The problem of subdivision and fragmentation is in no way peculiar to India, although it is very common to ascribe it to the Hindu and Mahomedan laws of succession which entitle every one of the heirs to a definite share in the ancestral property. There is no doubt that these laws permit subdivision, but they are by no means mandatory. The root cause of these evils would, therefore, seem to lie in the growth of the individualistic spirit which has led to a break-up of the joint family system in India. The increased pressure on land due to the growth of population and the decline of handicrafts has stimulated them further. There has been in recent years a gradual reduction in the size of individual holdings and plots. According to the figures of the census of 1921 the number of cultivated acres per cultivator in Bengal, Bihar and Orissa and Assam is only about three. Each man's holding is again divided into a number of widely separated fragments, as many as twenty-five in extreme cases, the smallest plot on record being only 30¼ square yards in area.

That excessive subdivision leads to a considerable wastage of land due to frequent boundaries is beyond dispute. It is also held that small holdings make large-scale and economical farming impossible. It is true that large-scale farming is out of place in a country with small holdings ; but large-scale farming is not necessarily the most efficient mode of farming. In Japan the average size of individual holdings is smaller than in any other country in the world and is less than even one-third of what it is in Bengal, yet the yield per acre in Japan is the highest among the notable rice-growing countries of the world and is about three times the yield per acre in India.

The disadvantages of fragmentation are that it causes an enormous loss of land and labour and renders efficient tillage impossible. Fragmentation is, no doubt, a serious evil and should be checked and rectified in the interests of agricultural improvement. The scattered holdings can be consolidated either by voluntary agreement or by legislation. Voluntary agreement has been successfully tried in the Punjab, but its success in the other provinces is less likely because the conditions in the Punjab are totally different to those prevailing in the other provinces. Further, the experience of countries like Germany and Denmark points to the futility of voluntary agreement. So State action is necessary and compulsory consolidation should be provided for by means of legislation.

PROBLEMS OF LABOUR

Conflicting views have been expressed as regards the quality of agricultural labour in India. Taking everything into consideration it must, however, be admitted that the Indian cultivator is less efficient than his brother in other countries. He is lacking in respect of (*a*) physical strength, (*b*) technical fitness, and (*c*) intellectual capacity.

(*a*) PHYSICAL DEFECTS

The Indian cultivator is deficient in the physical strength necessary for performing strenuous and sustained labour such as is required in agricultural operations. His physical strength is adversely affected by his standard of living and by the numerous diseases to which he becomes easily liable on account of his low vitality, uncongenial surroundings, superstitious beliefs and ignorance of the primary rules of health.

In order to remedy these defects serious attempts must be made with a view to improving the cultivator's standard of living and to stamping out the various preventible diseases from which he is liable to suffer. An extensive as well as intensive campaign like the one conducted against Kala-azar should be initiated by the Public Health Departments against Malaria, Cholera, Hook-worm and other preventible diseases. Provision should be made for an adequate supply of pure drinking water in rural areas. Proper arrangements should also be made with a view to acquainting the cultivator with the rudimentary hygienic principles by means of systematic propaganda and demonstration through lantern lectures and health-shows.

(*b*) TECHNICAL DEFECTS

The Indian cultivator is ignorant of the methods of intensive cultivation. He still adheres to archaic methods of agriculture. He does not take sufficient care in preparing the soil or in selecting the seeds. A rational system of rotation and diversification of agriculture is, on the whole, unknown to him.

The Agricultural Departments have been doing valuable work with a view to familiarizing the cultivator with modern methods of agriculture. The progress made, however, has been very slow ; more extensive and systematic arrangements should be made to push on with propaganda and demonstration so that the cultivator may be quickly converted to more efficient methods of cultivation.

(*c*) INTELLECTUAL DEFECTS

Efficiency in agricultural production requires also the application of human intelligence and human knowledge. In point of intelligence the Indian cultivator is probably on a par with cultivators in other countries ; but he is hopelessly lacking in point of knowledge. Apart from his colossal ignorance, he is steeped in superstitions and prejudices. All these go to make him a confirmed fatalist—conservative in habits, and devoid of energy, resourcefulness and enterprise.

The only remedy against these mental defects is a comprehensive scheme of rural education. Care should, however, be taken that education does not create a bias against manual work of all sorts in the mind of the young cultivator. It should be such as to create and 'promote interest in and love for agriculture and rural life in general'. It is desirable that such a scheme should also include provision for the education of females and adults so that all round progress may be possible.

PROBLEMS OF CAPITAL

These may be considered from the point of view of (*a*) Seeds, (*b*) Implements, (*c*) Cattle, and (*d*) Finance.

(*a*) SEEDS

The quality as well as the quantity of agricultural produce depends on the quality of the seeds. But the Indian cultivator is very careless in this respect. Further, seeds of a good quality are not always available to him.

The selection of seeds is at present engaging the attention of the Agricultural Departments and arrangements have, also, been made for the distribution of seeds through rural co-operative societies. The existing arrangements are, however, in no way adequate and should be improved in respect of both selection and distribution.

(b) IMPLEMENTS

There is as yet very little progress so far as the use of improved implements is concerned. The Indian cultivator still retains the old implements just as he adheres to archaic methods.

The use of improved implements should be popularized and their sales expedited by the Agricultural Departments. Careful consideration must, however, be given to the pecuniary circumstances of the cultivator and the conditions of his locality before a particular implement is selected for recommendation. Sometimes people are apt to think, in this connection, of costly machinery such as that used in America. But it should be remembered that apart from its cost which is beyond the means of the Indian cultivator, there is, at present, no scope for the application of machinery to agriculture in India. Further, mechanization is, by no means, the most desirable, nor even the best, solution of agricultural problems.

(c) CATTLE

Cattle play a most important part in the rural economy of India. They supply the motive power for ploughing and lift irrigation, act as draught animals, and provide the people with milk, an essential item in the dietary of a largely vegetarian population. Cattle, also, supply the two cheap manures available for the average Indian cultivator. In spite of the manifold advantages to be derived from cattle, India is hopelessly lacking in respect of her cattle wealth. From the point of view of mere number India, of course, holds a superior position. The cattle census of 1930 reveals a total of 155 million cows and buffaloes in British India alone—a number which is higher, not only absolutely but relatively also, than in many other countries. Notwithstanding their superiority in number, Indian cattle are inferior to those of other countries in respect of size, strength and milking capacity. This is due mainly to inadequate fodder supply, scarcity of grazing ground and absence of suitable breeding arrangements.

A programme for the improvement of cattle should include adequate provision for fodder supply and grazing grounds. The use of improved varieties of fodder crops should be popularized by the Agricultural Departments. The quality of cattle should be improved by suitable breeding arrangements, and the villagers should be taught to cut down the number of cattle by eliminating the weak and the inefficient so that the rest may receive greater attention and care. The Veterinary Departments should initiate an intensive campaign against the various cattle diseases, such as rinderpest, plague, etc.

(*d*) FINANCE

One of the greatest handicaps of the Indian cultivator is the paucity of his funds. Consequently he has to depend on credit not only for carrying on his agricultural operations but also for his support during the interval between sowing and reaping. In the absence of suitable financing agencies and in the absence of proper organizations amongst themselves, Indian cultivators are compelled to rely on the village money-lenders, notorious as much for their exorbitant rates as for their rapacity and unscrupulousness.

The essential need of finance was early recognized by the State and provisions were made for lending money at cheaper rates in certain circumstances to cultivators. Later on the Co-operative Societies Act was passed and it is hoped that the spread and development of the co-operative movement will offer the most satisfactory solution of the problem of rural finance.

PROBLEMS OF ORGANIZATION

The need for organization is obvious in connection with the production and sale of agricultural products. But organization is no less essential for the purpose of providing the cultivator with an adequate source of some supplementary income.

(*a*) PRODUCTION

From the point of view of production the need for organization is clearly seen in connection with the problems of finance as well as in relation to any scheme of improvement which requires concerted action.

The application of co-operative principles has, on the whole, proved successful in supplying the organization necessary for these two objects and a further extension of the movement in these directions is, therefore, desirable.

(*b*) SALE

There are various reasons which call for the establishment of efficient organizations for the sale of agricultural products. The cultivator, be it remembered, is a small producer and 'his farming is still largely of the subsistent type'. A portion only of his produce is offered for sale and that, too, in small doses and at irregular intervals. Hence his position as a seller is an extremely weak one in comparison with that of the highly organized dealers or merchants with whom he has to deal. Besides there are other difficulties in his way. Well-organized markets are rare and the few that are there are beyond the reach of the cultivator owing to the absence of adequate means of communications such as roads, bridges, etc. Consequently there has sprung up between the cultivator and the wholesaler or consumer a whole army of middlemen who share the bulk of the profits of agriculture among themselves. The conditions of the jute growers of Bengal will supply an illustration to the point. In spite of the fact that the jute industry was passing through the height of its prosperity a few years ago, no remarkable improvement was noticed in the conditions of the jute growers because the middlemen had taken all the profits for themselves leaving for the cultivators a bare return for their capital and labour.

The urgent need of a satisfactory solution of the problem of sale has come to receive the careful attention it deserves. And the principle of co-operation, restricted so far to a solution of the problem of production, has been extended further to give the farmer material help in disposing of his produce. But as the experience of Bengal shows the working of co-operative sale societies is not free from difficulties. This, however, does not prove that the task is beyond the scope of co-operation. Progress in this direction, involving as it does a certain amount of specialized knowledge, must necessarily be slow if it is to be steady. The sale movement has not been altogether barren; and with proper guidance there is no reason why it should not succeed in achieving for sale what it has already achieved for production. Vigorous attempts should also be made to improve the means of communications, to establish well-organized markets and to standardize weights and measures.

(c) SUBSIDIARY INDUSTRIES

Agriculture in India is a seasonal occupation which leaves a considerable amount of spare time for the cultivator. This varies according to local conditions from two to four months in the year. Hence there arises the necessity of providing the farmer with some suitable industry which can be profitably undertaken during the time when he has no work to do in the field. In Japan sericulture has proved to be a valuable source of supplementary income to the Japanese cultivators. There are several industries in India, such as hand-loom weaving, silk-worm rearing, silk weaving, the brass industry, the bell-metal industry, bidi-making, the cheroot industry, bamboo-mat making, toy-making, pottery, poultry-farming, market-gardening, etc.—which suggest themselves to us in this connection.

But there are certain difficulties which have to be met before much can be expected from any one of them. In the first place there is the need for proper guidance and instruction, which should be supplied by the Industries Departments. Then there is the difficulty about finance and marketing, both of which call for efficient organization, which may be provided by suitable types of co-operative institutions.

CHAPTER IV

AGRICULTURE IN INDIA *(continued)*

The Problem of Rural Indebtedness

Indebtedness is not a peculiar feature of Indian agriculture. It is universal in the sense that credit is a necessity of agriculture everywhere in the world, irrespective of its type and method. 'The lesson of universal agrarian history from Rome to Scotland', says Nicholson, 'is that an essential of agriculture is credit. Neither the condition of the country nor the nature of the land tenures nor the position of agriculture, affects the one great fact that agriculturists must borrow'.

It is, however, an unwelcome and painful necessity, as by its very nature agricultural credit has everywhere been associated with usury that drains the cultivator. 100 or even 200 per cent. per annum was not an uncommon feature of rural credit in Europe even as late as the early nineteenth century. Speaking of Italy Morison cites examples of rural usury up to 1,200 per cent.—a fabulous rate which should well excite the envy of the much denounced Indian 'bania'.

The Extent of the Evil in India

As recent enquiries have revealed, rural indebtedness in India is gradually mounting up. The most recent estimate—that of the Central Banking Enquiry Committee—comes to an approximate figure of 900 crores of rupees made up in the following manner:—

Assam	22 crores
Bengal	100 ,,
Bihar and Orissa	155 ,,
Bombay	81 ,,
Burma	50–60 ,,
Central areas	18 ,,
Central Provinces	36 ,,
Coorg	35–55 ,,
Madras	150 ,,
Punjab	135 ,,
United Provinces	124 ,,

The total debt amounts to more than fifteen times the total land assessment. The average debt per agricultural family in Bengal has been estimated at Rs. 160. The average debt per family in Assam has been estimated at Rs. 242; but 15 per cent. of the families are free from debt.

The rate of interest varies from 6 to 300 per cent. per annum according to the nature and duration of the loan. Interests on mortgages of land are generally lower while loans given without any security bear higher rates.

The Causes of Agricultural Indebtedness

As Professors Jathar and Beri point out, indebtedness is as much a cause as a result of poverty. Consequently the causes that explain the prevalence of indebtedness are also the causes responsible for the poverty of Indian masses. The evil of indebtedness has been ascribed to a number of causes, of which the following deserve mention.

(i) ANCESTRAL DEBT

In the opinion of the Central Banking Enquiry Committee out of the total indebtedness of 900 crores as much as 500 crores measures the inherited debt of the rural population. The inherited debt has been exalted into a legal obligation because by the force of tradition and custom it is regarded by the son or the heir as a debt of honour even when no property passes or the debt is not legally inherited. This intolerable burden tends to increase as the years pass by.

(ii) LIMITED INCOME

The small size of holdings and the way in which they are split up and cultivated makes it impossible for a farmer to earn anything more than a small income sufficient barely for his own livelihood. Consequently the margin of his saving is very narrow and tends to disappear owing to constant pressure due to loss of cattle from drought and diseases.

(iii) PRECARIOUS NATURE OF THE INCOME

The small income of the cultivator is by no means steady, because of the insecurity of crops due to various natural causes, such as droughts, floods, hailstorms, insects, wild animals, etc. 'It has been calculated', as Professors Jathar and Beri point out, 'that an agricultural cycle of five years gives one good year, one bad and three that are neither good nor bad'. In bad as well as in indifferent years, the cultivator must, therefore, depend on credit.

(iv) ABSENCE OF SOURCES OF SUPPLEMENTARY INCOME

This is due to the absence or decline of cottage industries which can give the cultivator profitable employment during spare hours.

(v) THE HABIT OF PURCHASING LAND AT HIGHER PRICES

This leads the cultivator to lock up his small savings and then borrow at exorbitant rates in times of difficulty. Sometimes the whole amount of the purchase money is borrowed from a money-lender.

(vi) EXTRAVAGANT HABITS

Lavish expenditure upon marriages and other ceremonies also compels the cultivator to go to the money-lender.

(vii) GROWTH OF POPULATION

Pressure of increasing population tends to reduce the income from land.

(viii) BURDEN OF LAND REVENUE

The burden of land tax together with the rigidity in the method of collection is also regarded as a cause of rural indebtedness.

(ix) THE MONEY-LENDER AND THE SYSTEM OF USURY

While the above causes explain the necessity of incurring debt, the vicious system of the money-lender's business accounts for its continuance.

Remedial Measures

The measures either adopted or calculated to remove the aforesaid causes may now be considered in the same order in which the causes have been set forth.

I. As the Central Banking Enquiry Committee point out, 'the only facility which is now available to the agriculturist for redeeming his standing debt, apart from borrowing from one money-lender to pay another, is supplied by the co-operative credit organizations, notably land mortgage banks'. They recommend the establishment of more of these banks, as also of land mortgage banks on the joint-stock basis for the large class of agriculturists and landlords who are outside the co-operative movement. The Committee, however, recognize the limited scope of land mortgage banks, for these can render help only to those who can produce security of land and who have got sufficient surplus to enable them to pay off their dues to the banks without further borrowings from money-lenders. For the benefit of the vast multitude who have neither any land nor any surplus income the Committee recommend 'the pursuit by the Local Governments of a vigorous policy of debt conciliation on a voluntary basis'. It may be noted in this connection that the Central Provinces Government have already decided to establish conciliation boards in selected areas for voluntary debt conciliation by way of experiment. In cases where the lender will not be agreeable to a voluntary settlement, compulsory settlement by means of legislative enactment is recommended. As regards debtors who are prepared to give up all their assets in discharge of the inherited debt the Committee endorse the Royal Agricultural Commission's recommendation for a simple Rural Insolvency Act, so that a debtor may have the chance of shaking off his old burden in order to make a new start in life.

II. The cultivator's income will increase considerably if the scattered plots are consolidated and if intensive cultivation is taken up. Loss from cattle diseases can be reduced by the adoption of adequate means for the improvement of cattle so that they may have a greater power of resisting diseases. It is also possible to check the various diseases by an intensive campaign carried against them by the Veterinary Departments.

III. The difficulty arising from drought may be partially remedied by irrigation, and that from flood by drainage. It is also possible to check insects and wild animals by the adoption of precautionary measures. The appearance of locusts on an extensive scale can be successfully dealt with by spraying insecticides from aeroplanes. There is, however, no remedy against storms and hailstorms.

IV. In order to provide the cultivator with subsidiary sources of income the cottage industries must be developed and facilities should be created so that each cultivator may take to one or other of them and work at it during his spare time.

V. There are two things which account chiefly for the craving for land. In the first place, the ownership of land is supposed to confer a distinctive social status ; in the second, land offers the safest means of investment for the rural population. The outlook of the cultivator can be widened by giving him education, while the opening up of postal savings banks in greater numbers in rural areas will provide him with better facilities for the safe investment of his savings.

VI. The improvident and extravagant habits of the cultivator can be reformed by education. The spread of co-operation, also, will go a great way towards inculcating the habits of saving and thrift among the rural masses.

VII. A certain proportion of the increasing population may, no doubt, be absorbed in the growing industries ; but the ultimate remedy would seem to lie in the adoption of birth control methods with a view to checking the tendency to multiply.

VIII. Land revenue, be it noted, bears only a small proportion to total indebtedness and its burden is not, on the whole, excessive. The existing method of assessment and collection is, however, somewhat rigid. Though suspension and remission of land revenue are granted on adequate grounds, yet the present system is likely to create hardships in individual cases, compelling the cultivator to run into debt. It is, therefore, necessary that the method of assessment and collection should be made more flexible than at present.

IX. It should be noted at the outset that it is not possible to eliminate the money-lender altogether. He is an indispensable functionary in any scheme of rural economy. All that is desirable and practicable in the present circumstances is to reform him or, to be more accurate, his method of business. In this connection the recommendations of the Central Banking Enquiry Committee deserves the most careful consideration.

They recommend the enactment of provincial legislation on the lines of the Punjab Regulation of Accounts Act (1930) which compels the money-lenders to keep complete and separate accounts for every transaction and to supply each debtor every six months with a written statement of his debt showing the amount outstanding and all transactions entered into during the period to which the statement relates. As regards the question of interest 'a real and lasting solution' in the opinion of the Committee, 'can only be found by the spread of education, the extension of co-operative and joint-stock banks and by the training of the borrower in habits of thrift and economy'. The Committee further think that the Usurious Loans Act of 1918 can be worked to the great relief of debtors in cases where the rate of interest is excessive or the transaction between the lender and the borrower is substantially unfair.

The Future of Agriculture in India

The foregoing survey of agriculture in India reveals undoubtedly a deplorable state of things. But the situation is by no means hopeless and there is much room for improvement in every direction. Sir Daniel Hamilton thinks that the agricultural wealth of India can be doubled by the application of co-operative principles and of improved methods of agriculture. But there are serious difficulties which must be solved before the desired end can be achieved. A good beginning has, however, been made in almost all directions and the State can claim its fair share of credit for taking the initiative in nearly every case.

The State in relation to Agriculture

Various measures have been adopted by the Government to meet the innumerable difficulties in the way of agricultural improvement. Some of these aiming at stimulating and improving the production of crops include :

(i) steps taken with a view to providing irrigational facilities ;

(ii) the establishment of schools and colleges to impart agricultural education ;

(iii) the creation of Provincial Agricultural Departments for the purpose of conducting demonstration and propaganda about new methods and improved implements ; and

(iv) the setting up of the Council of Agricultural Research which is 'to promote, guide, and co-ordinate agricultural research throughout India'.

Measures adopted to check the evil of indebtedness include :

(i) steps taken with a view to popularizing primary education in rural areas ;

(ii) the establishment of postal savings banks in villages to promote thrift and saving ;

(iii) the Usurious Loans Act of 1918 (amended in 1926) which aims at protecting the ryot against the extortionate money-lender ;

and various other measures adopted to provide the cultivator with cheap credit.

Measures adopted for the solution of the problem of agricultural finance include :

(i) the Land Improvement Loans Act of 1883 which provides for the issue of long-term loans for permanent improvements on land such as wells, embankment, etc. ;

(ii) the Agriculturists' Loans Act of 1884 which provides for the issue of short-term loans for current agricultural needs such as the purchase of seed, cattle, manure, etc. ; and

(iii) the Co-operative Societies Act of 1904 (amended in 1912) which laid the foundation of the co-operative movement in India.

Other measures of State help include :

(i) the establishment of the Provincial Public Health Departments to look after rural sanitation ;

(ii) the organization of the Veterinary Services to arrange for the treatment of cattle diseases ;

(iii) the maintenance of cattle farms to stimulate the improvement of cattle ;

(iv) the tenancy legislations designed to give tenants security of possession in their 'jote' lands ;

(v) the protection granted to the sugar industry which will stimulate sugar-cane cultivation, and the imposition of duty on imported wheat to protect Indian cultivators ;

(vi) facilities for industrial training and the provision made in some provinces for giving State aid to industries, both of which are calculated to stimulate the development of subsidiary industries ; and

(vii) facilities for marketing by improving the various means of communications.

The Outlook for the Cultivator

This brief review of what has already been done by the State for the improvement of agriculture indicates Government's solicitude for the welfare of the rural population. The attempts so far made are, however, no more than mere beginnings and a good deal more is yet to be done in every direction if the vast problem is to be successfully tackled. It should, also, be noted that the mere provision of outside help will bring no lasting solution unless and until the cultivator himself begins to desire his own improvement. As Moreland points out, 'if it is true that better living can be secured only by a combination of better farming and better business, it is equally true that the will to live better must provide the driving power that is required'. The wholesome influence of education and co-operation on the outlook of the cultivator should therefore be strengthened by all other means calculated to promote mass education in the widest sense. All the departments of Government engaged in rural areas should apply their combined and organized effort in this direction. It is, also, desirable that the enlightened public of India should realize the vital importance of the matter and lend their valuable support for the successful solution of this 'central problem' of rural reconstruction.

CHAPTER V

RURAL RECONSTRUCTION

The Village

From times immemorial the village has played a conspicuous part in the social and economic organization of the country. Though the former character of the village has of late been rapidly changing, yet its importance from an economic or social standpoint has scarcely diminished. The great bulk of the people in India, nearly 90 per cent. of the total, are villagers belonging to about 500,000 villages. It is evident, therefore, that no satisfactory progress in social and economic development is possible without a comprehensive scheme of rural reconstruction.

The Needs of the Rural People

The numerous needs of the rural people arise in connection with the problems of poverty, disease and illiteracy.

The poverty of the Indian masses is an undisputed fact and it can be cured only by the production of wealth in abundance. This gives rise to a number of problems relating to the production, sale and distribution of agricultural and industrial products. They include such matters as the improvement of agriculture and industries, the provision of credit facilities, the extension of irrigation and drainage, the improvement of the means of communications and better marketing facilities. The question of the settlement of petty disputes also comes under this head as 'the waste of money and resources on petty and wanton litigation is one of the most potent factors of the impoverishment of the rural population' (Dutt).

The prevention of diseases depends mainly on the improvement of sanitary conditions in rural areas, for which a number of measures have to be adopted. These include provisions for pure water, unadulterated food, proper housing and medical relief. The villagers should be taught to maintain a high standard of cleanliness and to appreciate the advantages of properly kept latrines, of well-protected tanks and wells. They should also be induced to fill up marshy swamps and to clear up old and silted tanks. There should be provision for healthy recreation and amusement so as to make village life more agreeable and attractive to landlords and other advanced people of the community.

The injurious habits and customs which retard the growth of wealth and health in rural areas are the outcome of illiteracy. Consequently no measure for progress is likely to be successful unless and until there has been a change in the cultivator's outlook which can come only with the gradual spread of education of both the young people and the adult on a rational basis so as to create love for the village and village occupations. Education for girls also should be provided for so that as mothers they may be 'dominated by high ideals of morality and social service in order that they may give their time and strength unsparingly to the task of training their children, for good citizenship' (Carver).

The Problem of Rural Reconstruction

For an improvement in the various conditions of rural life whether in its economic or in its social aspect, State help is no doubt an indispensable necessity, and the initiative has already been taken by the State in nearly every direction. Though there is still much room for valuable State action, yet the State, it should be noted, can scarcely do more than merely point the way in matters affecting the welfare of the villages. The actual work must in any case be left with the villagers themselves.

But owing to various causes the old ideal of corporate life in the villages has practically disappeared and in the place of villages with efficient organization for common action in all matters concerning communal life there are now villages consisting of a multitude of disunited individuals, living, it is true, in mutual proximity but unconscious of their common interests and incapable of common action. Hence it is no wonder that the rural people should seem incapable of receiving new ideas or grasping new opportunities.

The problem of village reconstruction is, therefore, primarily a problem of village reorganization and the supreme need of the moment is the reorganization of the villages in accordance with the old ideal of corporate life and action. That this is not an impossible ideal is amply borne out by the modern economic history of some European countries, notably Denmark. 'The Danish people', writes Carver, 'have demonstrated that it is possible for a whole people to become as thoroughly united and as enthusiastic upon the common interest of agricultural production and national upbuilding as it is for a body of college students to become upon the subject of an athletic contest or for a nation to become on the subject of war'.

Village Organizations

The urgency of the problem of organizing the rural masses does not seem to have been fully realized, though a number of organizations have already come into existence in certain parts of the country. There are, broadly speaking, two types of village organizations: (i) the official and (ii) the non-official.

(i) The official type includes the various rural administrative units, such as Village Panchayats, Village Authorities, Union Boards and Union Committees, created under the Local Self-Government Acts in the different provinces. Their aim is to enable the villages to maintain and develop self-government while participating in the larger life of the province. The various duties they perform relate to the improvement of sanitation, communications, and education. These include the supply of water, the cleansing of drains, tanks, wells, etc., sanitation, conservancy, prevention and abatement of nuisances and the preservation and improvement of public health; the construction, maintenance and repair of minor roads and bridges; and the supervision of village schools. Besides these executive functions they also perform some judicial functions, as they are empowered to try certain trivial offences, especially breaches of the by-laws regulating the performance of their executive functions. Their expenses are met from the village fund, which is partly maintained by contribution from Government and District or Local Boards and partly by house and other village taxes. The Union Boards in Bengal belong to this class. Their serviceableness is indicated by the rapid growth in their number in recent years.

(ii) The non-official type includes: (*a*) organizations formed under regulating laws and (*b*) purely voluntary organizations.

(*a*) Voluntary organizations formed under the Co-operative Societies Acts fall under this class. It is difficult to estimate the possibilities of this movement. Co-operative rural societies for credit, production, sale and distribution have already been organized in different parts of the country. The scope of co-operation is, however, not limited to the economic aspect of the rural problem. The splendid records of the Co-operative Anti-Malaria Societies formed in Bengal under the guidance of Rai Bahadur Dr. Gopal Chandra Chatterjee and of the Co-operative Irrigation Societies of Bankura and Birbhum afford striking proofs of what co-operation can accomplish in improving the health of the village people.

(*b*) Purely voluntary organizations include such bodies as the Servants of India Society of Poona, the Bengal Social Service League founded by Dr. D. N. Maitra, the Bengal Health Association and other welfare associations, such as those organizing health weeks, baby shows, etc. The working of every one of these agencies illustrates beyond the possibility of doubt the value of organization as a means of propaganda and demonstration in connection with education, health, and other social matters.

The Conclusion

Though different views are sometimes expressed as to the relative values of these various types of organization there is no doubt that their simultaneous existence and activity is essential for a complete solution of the problem of rural reconstruction. No satisfactory progress in the work of rural welfare is possible so long as every village or group of villages has not been provided with suitable organizations, each with a definite object and all of a particular type federated, if necessary, into central organizations. Here there is a splendid opportunity for the educated young men, the college and university students who should emulate 'the example of the university students of Finland who when they saw their country lagging behind in the march of progress and getting economically impoverished, banded themselves for the work of co-operative organization and did not rest content until they had organized the whole country for co-operative production, sale and distribution and thus not only saved their country from ruin but brought it back to economic prosperity and to the rank of progressive nations'.

CHAPTER VI

THE CO-OPERATIVE MOVEMENT

History of the Movement

Credit is an essential of agriculture all the world over. It is, however, an unwelcome necessity, as it is fraught with dangers whether it is obtained on hard or on easy terms. Facile credit is as much dangerous as credit at burdensome rates ; because while the latter leads to usury, the former promotes recklessness, and in either case the burden of the debt increases at an alarming rate. For a successful solution of this dilemma, agriculturists in India, as in several other parts of the world, are beholden to the German burgomaster Raiffeisen.

Raiffeisen started his first credit society in 1849 about the same time when Schulze-Delitzsch, another German, started his urban banks. Both these two types are based on co-operative principles ; but the Raiffeisen type of societies is more suitable for small agriculturists while the Schulze model is more suitable for poor artisans. The co-operative credit societies, more particularly those of the Raiffeisen type, worked so marvellously that they began to be quickly copied in other countries of Europe, everywhere with wonderful results. The movement soon attracted the attention of public-spirited people in India and several years ago Wedderburn, Ranade and others advocated its adoption. In 1892 the Government of Madras took the initiative by deputing Mr. (afterwards Sir Frederick) Nicholson to study the system and report about it. He summed up his monumental report published in 1895 and 1897 in two words 'Find Raiffeisen'. Some district officers in the United Provinces, the Punjab and Bengal took up the idea and began to organize societies on their own initiative. The Indian Famine Commission of 1901 strongly recommended the introduction of credit societies on co-operative principles. These recommendations were carefully considered by two committees and finally took shape in the Co-operative Credit Societies Act of 1904, which provided for the formation of credit societies in India.

The Act of 1904 provided for the establishment of Primary Credit Societies only. In the course of its working, it became evident that progress was bound to be slow until provision was made for the formation of secondary bodies like Central Banks and Unions to finance and supervise the primary societies. Hence a second Act was passed in 1912 in order to remove the defects of the Act of 1904. The Act of 1912 recognized three kinds of secondary societies, viz. Unions, Central Banks and Provincial Banks. It further recognized various non-credit forms of co-operation, such as those relating to purchase, sale, insurance, housing, health, etc. The movement received a further stimulus with the publication in 1915 of the valuable report of the Maclagan Committee appointed by the Government of India. The report contains several constructive proposals which should prove extremely valuable from the point of view of the further development of co-operation in India. With the inauguration of the Reforms, Co-operation has become a Provincial Subject in the Transferred Departments and since then there has been a large addition to the number of societies all over India.

The Present Position of the Movement

According to statistics given in the report of the Central Banking Enquiry Committee the total number of societies of all types in British India on the 30th June, 1930, was 94,495 with a total membership of 3,733,574. Of these, the agricultural credit societies alone come up to 74,410 with a total membership of 2,394,246. Besides, there are about 15,000 societies in the Indian States. The total working capital in the movement is believed to be in the neighbourhood of 50 crores of rupees. The credit facilities so far provided by the co-operative movement to agriculturists in India cover but a very small proportion of their needs. Roughly speaking, about 20 million people out of a total of 350 million in India, that is, less than even 6 per cent., have been touched by it.

Classification of Co-operative Societies

Societies may, first of all, be classified into—

I. Primary,
and II. Secondary.

I. PRIMARY SOCIETIES

A Primary Society may be either for (*a*) Credit, or for (*b*) Non-credit, purposes.

(*a*) A Primary Credit Society may be either

- (i) Agricultural, such as an ordinary credit society in rural areas,

  or

- (ii) Non-agricultural, such as a society of weavers, or of carpenters, or of mat-makers, or of shoe-makers, or of any other class of artisans.

(*b*) A Primary Non-credit Society may, also, be either

- (i) Agricultural, such as a society for the sale of agricultural products, or a society for the purchase and sale of agricultural implements, manures, etc., or societies for cattle-breeding, irrigation, etc.,

  or

- (ii) Non-agricultural, such as a society for building houses, or a society for the improvement of sanitation.

The Primary Agricultural Credit Societies

Of these various types of primary societies, societies for agricultural credit are the most predominant in number and in importance. These are based mostly on the Raiffeisen model. Each of them has a limited area of operation and any individual within that area is eligible for membership provided he is a person of good character. Members are required to have a mutual knowledge of one another and a mutual control, also, with regard to the use and repayment of loans. The liability of the members is unlimited and a detailed statement of their properties and debts is recorded in a list called the 'Haisiyat Register'. The list is to be annually revised and thus it furnishes a tangible proof of the change in the economic condition of the members. In some provinces members contribute a small share capital, in others they do not. Management is democratic and gratuitous. It is entrusted to the Panchayat or the Managing Committee which is elected every year at the annual general meeting of the society.

The capital of these societies consists of admission fees, deposits by members, shares capital (if any), reserve fund, deposits from outsiders and loans from Government or from Central or Provincial Banks.

Loans are given to members only and generally for productive purposes. Loans are also issued for current expenses other than those incidental to agriculture and for the redemption of old debts. Loans are to be issued after a careful scrutiny as to their objects and loans for unproductive purposes should be generally discouraged. Borrowing members are required to furnish securities from amongst members of the society and collateral security of property—both movable and immovable—is also accepted and, sometimes, even insisted on, though honesty should, strictly speaking, be regarded as the chief basis of credit.

Instalments of repayments should be fixed with due regard to the time of payment most convenient to the borrower and to his repaying capacity. Punctual repayment should be insisted on, but suitable extension of the period of repayment may be given in cases of distress.

In non-share societies all the profits are to be carried to a reserve fund. In share societies a certain portion is available for distribution as dividends on share capital, but at least 25 per cent. of the profits must go to the reserve fund. In all cases, however, a certain amount of the profits may be spent for charity or for an object of public utility. The reserve fund is, in some cases, partially utilized as working capital but from the point of view of safety, the Central Banking Enquiry Committee recommend the separate investment of the entire amount of reserve fund in central banks.

II. SECONDARY SOCIETIES

Secondary societies may be classified as (*a*) Unions, (*b*) Central Banks or Unions, and (*c*) Provincial Banks.

(*a*) A 'Union' is a federation of primary societies within a distance convenient for the purpose of effective supervision. The work so far done by the unions, however, does not deserve particular mention.

(*b*) The primary societies in a specified area—a subdivision or a district—are federated into a central society which may be either a 'Central Bank', or a 'Banking Union'. A central society may have as its members only primary societies or membership may include both societies and individuals. In the former case, it is called a 'Banking Union'; in the latter, a 'Central Bank'. This distinction, however, is very little observed in practice and banking unions, nowadays, include individuals also as their members.

The central banks are financing agencies for the primary societies and also act as balancing centres for adjusting the excesses and deficiencies of the working capital of primary societies affiliated to it. The capital of a central bank consists largely of share capital, deposits, and loans from the provincial bank, or from the Imperial Bank of India or from some other central bank. They make loans to primary societies only and follow the same rules as those followed by primary societies in granting loans to their members.

(*c*) The central banks in a province are federated into what is called a 'Provincial Bank' or 'Apex Bank'. There are provincial banks in all the Governors' Provinces in India except the United Provinces. Their capital consists mainly of share capital, deposits and loans from the Imperial Bank of India. They lend primarily to central banks and occasionally, also, to primary societies. Just as the central banks act as balancing centres for primary societies so do provincial banks act as balancing centres for central banks.

There is at present no inter-provincial agency or an agency of an all-India character and the present Act does not provide for the registration of such societies. Yet there are two informal associations, viz. the Indian Provincial Co-operative Banks' Association and the All-India Co-operative Institutes' Association. The Central Banking Enquiry Committee recommend the change of the present Act so as to provide for the registration of all-India institutions of this nature which should serve as co-ordinating agencies in the matter of co-operative finance and research.

The Registrar

Co-operation is essentially a people's movement and it has been so at least in European countries. But the introduction of co-operation in India, as in Japan, 'was', as the Agricultural Commission point out, 'essentially the act of a Government anxious to ameliorate the conditions of the people'. There was no co-operative experience in the country to guide it except that of the few officials deputed by the Government, from time to time, to study co-operation abroad. Hence the whole movement in India had to depend on official support and in each province a Government Department had to be created with a Registrar at its head.

The Registrar was, therefore, the hub of the whole system to begin with; and even now he wields enormous responsibilities, so that the future of co-operation depends on an efficient discharge of these responsibilities more than on anything else. He is not a mere registering officer but performs the important functions of supervision, assistance, counsel and control. He can refuse to register a society which is not, in his opinion, formed on a sound basis and can, also, dissolve an existing one when such a dissolution is deemed necessary. The maximum borrowing limits of all classes of societies (even of individual members, in some cases) and their rates of interest in respect of loans, borrowings and deposits are fixed subject to his approval. The formation of the managing committees, the distribution of profits and the entire proceedings of the annual general meetings of all classes of societies require his sanction. Of all the forms of statutory control vested in the Registrar, the most important is compulsory audit which is 'not a mere examination of books and preparation of balance sheets', but 'should embrace an enquiry into all the circumstances which determine the general position of a society'.

It is, however, evident that in order to realize the ideal of self-help this official guidance and control will have to be gradually relaxed in proportion as it becomes redundant with an adequate supply of leadership and technical knowledge forthcoming from among the non-official workers. The primary duty of the Registrar and his staff is, therefore, to instruct the community as a whole in the principles and objects of co-operation and to attract and train suitable people as non-official workers in its cause. The magnificent aim of the Government's policy will be realized only when the entire movement is in a position to stand on its own legs, without any support from outside.

Land Mortgage Banks

The cultivator needs credit not only for his current expenses of agriculture and of maintenance, but also for the redemption of old debts and for the improvement of lands. Loans for the former purposes are required in relatively small amounts and for a comparatively short time, while those for the latter are required in large sums and for a long time. At first the activities of the co-operative credit societies were confined chiefly to the provision of credit for the short-term needs of the cultivator. But as it transpired that the cultivator would, still, have to go to the 'Mahajan' for his long-term needs, an attempt was made to meet those needs, also, against collateral security of land. The result, however, could not but be disappointing, for neither the slender resources of the credit societies were adequate for the long-term needs of the cultivator, nor could those funds be locked up for long terms. Further, there were the needs of the necessitous landlords which were beyond the scope of the small village banks.

For the satisfactory solution of the problem of large loans for long terms a special type of machinery known as 'Land Mortgage Banks' have come into being. At present such banks exist in the provinces of the Punjab, Madras, Bombay, Bengal, and Assam; but their number is far from being adequate for the existing demand. They are limited liability societies, registered under the Co-operative Societies Act. Different practices are followed in different provinces with regard to the actual working of these institutions. But in every case the area of operation—whether large or small—is fixed and loans are issued only to members against mortgages of land. Membership includes cultivators or both cultivators and landlords and loans are generally issued for pretty long periods, extending from five to thirty years. Capital is derived from shares and debentures or from shares and deposits.

The Indian Central Banking Enquiry Committee fully recognize the widespread demand for long-term loans. The Committee, however, make a distinction between the needs of agriculturists who are within the co-operative movement and the needs of those who are outside, as also of landlords. In the opinion of the Committee, requirements only of the former class are to be met by co-operative land-mortgage banks while those of the latter are to be provided for by land-mortgage banks to be formed on the joint-stock basis or on the model of the English Land-Mortgage Corporation.

What Co-operation has done in India

In view of the huge number of people in India and their colossal needs, the co-operative movement may be said to be still in its infancy. So it is yet too early to expect too much of it. Nevertheless, the movement has not been altogether barren of some beneficial results. The co-operative movement has benefited the agriculturists in more than one way—direct as well as indirect. Agricultural production has been stimulated by the cheap credit it offers. The cheap credit provided by the co-operative societies has also forced the money-lenders in some localities to reduce their rate of interest. Irrigation facilities, employment of costly implements, and purchase of manures and seeds at cheaper rates, are now within the reach of the poor cultivators organized on the co-operative basis. The quality and the quantity of the produce have improved and the produce can, also, fetch better prices for the cultivator by eliminating the middlemen through co-operative sale societies. Besides, the employment of co-operation in dairy farming as well as for the purchase of raw materials for cottage industries, though as yet on a limited scale, is bound to promote them, so that the agriculturists may have a substantial subsidiary income. On the other hand, the establishment of consumers' societies, again to a very limited extent, has enabled the cultivators to obtain the articles they require on favourable terms.

In addition to these a beginning that has been made in the direction of forming health and housing societies on co-operative lines will, in course of time, remove the physical inefficiency of the poorer classes in both villages and towns. Further, the moral influence that the movement exerts has led to a social improvement wherever co-operation has gained a firm footing. It has made the cultivators thrifty, self-reliant, less selfish and more prudent. The twofold advantage—material as well as moral—is sure to offer an effective check to the evil of indebtedness in India and to lead to the growth of a healthy and prosperous peasantry.

But the bright picture drawn above should not blind us to some of the dark features of the movement. Within the limited period of its life in India, co-operation has, no doubt, made remarkable progress. But the progress has been neither all round, nor uniform. There has been an overwhelming preponderance of agricultural credit societies and a comparative lack of progress in other directions.

There are fewer societies for purposes other than those for supplying credit to the rural people. Some progress has been made in recent years only and a number of societies for supplying credit to artisans, for purchase, for purchase and sale, for housing, for irrigation, for sanitation and for similar other purposes, have been formed. But the progress in no case has been as satisfactory as it should have been. In Bengal, for example, the agricultural purchase and purchase and sale societies incurred loss during the year 1930-1931. 'The total failure of the jute sale societies during the same period has made it apparent', as the Government resolution points out, 'that there are various difficulties which are not easy to meet successfully in the operations of purchase and sale societies'.

On the agricultural credit side of the movement, the provision for long-term credit is yet hopelessly inadequate. In the next place, there are serious defects in the working of the credit societies in rural areas. The gradual mounting up of overdues is causing anxieties in the mind of every well-wisher of the movement in India.

All these defects point, above everything else, to a regrettable lack of appreciation of the fundamental principles of co-operation. The true co-operative spirit is yet to grow among the masses and immediate steps should be taken to educate them in the principles and meaning of co-operation. The task of education would, by no means, be an easy one, particularly in view of the illiteracy of the people ; yet the difficulties have to be faced if co-operation is to succeed at all. On the other hand, 'if co-operation fails', as the report of the Royal Commission on Agriculture points out, 'there will fail the best hope of rural India'.

The Meaning of Co-operation

'Co-operation' has been defined by Calvert as 'a form of organization, wherein persons voluntarily associate together as human beings, on a basis of equality, for the promotion of the economic interests of themselves'.

Co-operation, therefore, is essentially an organization or 'method of doing business'. As a business undertaking, however, co-operation differs from other forms of business undertakings in that it furthers the material welfare of those who seek their individual interest through the common interests of all others with whom they are associated. Thus it puts a premium on honesty, selflessness and other virtues and stimulates their growth.

The co-operative movement owes its origin to poverty and to the desire for some way out of all the distress and hardships that poverty entails. It is the realization of this common object which binds the members together in an association because individually every one of them is incapable of improving his condition.

It should be noted, however, that though historically co-operation is a poor men's movement, poverty is by no means an inevitable condition for the successful application of co-operative principles. So far as the poorer classes are concerned, co-operation is undoubtedly the only means for their salvation; but they are not the only people who can derive benefit from it. Hence it is no wonder that the co-operative movement should have spread more among the moderately poor than among the poorest classes.

The only thing that is required for the application of co-operative principles is the existence of a common need which must be fully realized by every one concerned. The success of co-operation depends on the loyalty with which each one of the members works for the achievement of the common object. Every member, therefore, should sacrifice his own personal interests so far as such interests are likely to conflict with the common interests of all. The essential conditions of the success of the movement are, therefore, the growth and development of a spirit of self-sacrifice, of mutual help and of similar other virtues. As Levy remarks, 'if the co-operative system is to flourish, it presupposes a co-operative spirit; that is to say, a certain brotherliness, possibly even some sentimentality, of disposition. In little village communities with old established and traditionally respected members, families which have held together, in spite, no doubt, of many family quarrels, for hundreds of years, the ground is prepared for co-operative action'.

The Principles of Co-operation

Co-operation is primarily an association of poor people who possess no capital. So it cannot be formed on the basis of capital to be contributed by the members. Members, therefore, join not as capitalists but as individuals whose character forms the only basis of the organization. It may be that in certain cases members are required to contribute some share capital also but there should be no distinction on the basis of capital contributed by individual members.

As co-operation is an association of persons for the achievement of a common object it follows that there should be no difference among them so far as the achievement of that object is concerned. So they meet on a basis of equality. Whatever may be their individual position outside, within the society they occupy the same position. Hence the rule that every member should have one vote and one vote only. Co-operation thus rests essentially on a democratic basis.

Management of a co-operative society is conducted on democratic lines. Offices go by round so that every member has a chance to serve as an office-bearer.

As co-operation is essentially a business organization with the primary object of supplying cheap credit to its members, it follows that it should strictly observe economy in the management of its affairs. Offices are, therefore, honorary, so that there may be as little addition to the expenses as possible.

As a business organization the success of co-operation depends on the promptness and regularity with which members meet their liabilities. Hence it is essential that members also should practise economy and thrift in their daily life.

As a form of business undertaking co-operation possesses one peculiar advantage over other forms as it puts a premium on unselfishness. 'The essence of co-operation', as Calvert points out, 'is that each shall work for all and all shall work for each for the attainment of their common need'. Individual self-seeking is, therefore, replaced by a feeling of community of interests which stimulates common action for the achievement of the common object.

In preaching for self-help through mutual help co-operation differs from capitalism in which every one seeks his individual interest in his own way. Co-operation, therefore, is essentially a principle of peace and order, whereas capitalism leads to dissensions and disorder.

It should be noted, however, that co-operation is not a charitable organization, for persons who associate together in co-operation do so primarily for their own advantage and not for that of people outside.

But co-operators must not seek this advantage in an exclusively selfish spirit, for the ultimate object of co-operation is the common good. So there should be no restriction to the admission of new members and there should be no arbitrary limit to the number of members in a society as in a joint-stock concern.

As the success of co-operation depends on the loyalty with which every one of the members works for the attainment of the common end, it follows that the principle of association should be voluntary, and that every member should be given the opportunity of expressing his opinion as to the fitness of an existing member or of any other person seeking admission. Any one is thus free to join a co-operative society or to leave it if he is already a member. Admission of new members is based on popular election and expulsion of existing members by popular vote is, also, provided for.

In order that members may make a correct choice of their associates, it is essential that there must be mutual knowledge among them. Hence it is evident that membership should be restricted within a given area so that members may know one another.

CHAPTER VII

LAND REVENUE AND LAND TENURES

Origin of Land Revenue

Land revenue has been an important source of the State's income in India from the earliest time of which we have record. According to the sacred laws of the Hindus it was the duty of the peasant to pay some share of the gross produce of the land to the King in return for the protection afforded by the latter. The same arrangement continued under the Mahomedans except that payment in kind was commuted into payment in money. Generally speaking, the Hindu lawgivers regarded one-sixth of the produce as a reasonable amount of King's share, but this may have been quite an ideal distribution. The ordinary standard during the Mahomedan period ranged between one-third and one-half, with a distinct tendency, as Moreland points out, towards the higher figure. In claiming, therefore, a share of the produce of land the East India Company merely stepped into the shoes of the Moslem rulers, while the British administrators greatly improved the existing system.

Towards the end of the Moghul period the State would no longer deal with individual peasants and the actual assessment was left to the revenue farmers. The revenue farmers agreed to pay an annual sum to the State and were in return given a free hand in dealing with individual peasants. This led to an increase of land revenue ; but it also led to a wide diversity in the methods of assessment. Consequently the supreme task with which the British administrators were faced was the creation of a simple and rational system of assessment.

Systems of Land Tenures

Two different systems of land tenures were gradually developed : the 'Zemindari' and the 'Ryotwari'. In the 'zemindari' system the State does not deal directly with the actual cultivators but with the intermediate landlords who may be either individuals or bodies of individuals. In the 'ryotwari' system the State deals directly with each individual peasant. The former system prevails in Bengal, the United Provinces, the Punjab, the Central Provinces and parts of Madras and Assam; the latter is found in Bombay, Burma and the greater parts of Madras and Assam.

Under either system the peasant has become definitely a tenant paying rent instead of the King's share of the produce. But the landholder in the zemindary tracts is regarded as an owner subject to the regular payment of land revenue and entitled to collect rents from the actual cultivators.

Permanent and Temporary Settlement

Land revenue may be fixed either in perpetuity or for a fixed period only. In the former case it is called 'permanent' settlement, in the latter 'temporary' settlement. Under 'permanent' settlement the revenue liability of landholders remains unalterable even though the productivity of land may have increased. Permanent settlement was first introduced in Bengal in 1793 and was later on extended to parts of Madras and the United Provinces.

In all other parts of India settlement is made for a 'temporary' period varying generally from 10 to 30 years. On the expiry of the settlement the existing rates are liable to be revised and may be increased in correspondence with the rise in the productivity of land. Temporary settlement exists in all the ryotwari tracts and in a considerable area of zemindary tracts. It has been estimated that the ryotwari area covers more than half of the total area paying land revenue; a little less than one-third is in the hands of landholders subject to periodic revision; and rather less than one-fifth is held under permanent settlement.

Permanent Settlement of Bengal

In 1765 the revenue administration of Bengal was entrusted to the East India Company by the Moghul Emperor Shah Alam. By this time there had arisen in Bengal a small number of landholders, who were technically revenue farmers, paying fixed sums as land revenue. The revenue they paid was supposed to represent nine-tenths of what they collected from the peasants.

The Company was at first bewildered and after various unsuccessful attempts a settlement was ultimately made with the existing landholders on the basis of an assessment of about ten-elevenths of what they received from the peasants. The settlement was only temporary at first but it was declared permanent and assessment made unalterable by Lord Cornwallis in 1793. Under permanent settlement the landholders were placed in the position of owners subject to the payment of the fixed revenue and the peasants became their tenants concerned no longer with any payment to the State.

Merits and Defects of the System

The main objects of the Government in introducing the permanent settlement were (1) the security of revenue, (2) the creation of a class of loyal landholders, (3) the improvement of land, and (4) the creation of a class of healthy peasantry.

The first two objects may, on the whole, be said to have been fulfilled. The revenue has been less liable to fluctuation than before and the zemindars have all along been admired for their loyalty to the Government. But in the light of the enormous rise in land values, particularly in urban areas, it would seem that financial stability has been attained at a disproportionately high cost since under permanent settlement the State has renounced its claims to the unearned increment. Nor is this loss to the State compensated by a general rise in prosperity, because the whole amount of the unearned increment is appropriated by a few landlords, who have so far contributed very little to the welfare of the country.

The last two objects may be regarded as having failed. The landlords have, on the whole, displayed a remarkable lack of interest either in the improvement of land or in the welfare of their tenants. Most of them are absentees in towns and cities and the only function they perform is the collection of rent from the ryots. The exceptional vigour with which they began to perform this function gave rise to conditions so intolerable that a number of Tenancy Acts had to be passed to protect the helpless tenants against the landholder's arbitrary power of rack-renting and eviction.

Burden of Land Revenue

Conflicting views have been expressed as to the actual burden of land revenue under British rule. On the one hand it is maintained that its burden is oppressive and that it is one of the causes of the poverty of the masses and is, therefore, partially responsible for the recurrence of famines. On the other hand, it is held that the burden is not excessive and that 'the share taken by the Government as land revenue has steadily decreased'. There is no doubt that the payment made by the tenant to the State under British rule has borne a smaller proportion to the produce than the payment made in the Mahomedan period. Under British rule he has been paying at a rate varying approximately from one-fifth to one-tenth or even less of the gross produce, as against one-half or one-third under Mahomedan administration. In the zemindary regions he pays somewhat more, though the State receives distinctly less, than in the ryotwari tracts. But there is reason to believe that in either system a margin has been left at the disposal of the tenant. This margin, however, is liable to disappear if the present slump continues and in the event of the downward tendency of prices of agricultural commodities not being arrested the present system of assessment will require complete overhauling.

CHAPTER VIII

FAMINES

Introductory

Throughout her long history India has, from time to time, suffered from famines of varying degrees of intensity. There are references to famines in the earliest Sanskrit literature, such as the 'Rig Veda', the 'Ramayana' and the 'Mahabharata' and also in the subsequent Buddhistic literature, such as the 'Jatakas'. The 'Arthasastra' of Kautilya bears numerous references to famines and the 'Ratnagiri' contains the horrible picture of a famine in Kashmir in 917 A.D. The historians of the Mahomedan period have left records of several famines, some of which, as for example those during the reigns of Akbar and Shah Jahan, were so severe as to drive men to the extremity of eating each other.

During the East India Company's rule several famines occurred, the most terrible ones being the Bengal famine of 1770, the Madras famine of 1792, and the Upper India famine of 1837. The most dreadful calamities since the transfer of the administration of India from the Company to the Crown have been the Orissa famine of 1866 which carried away about one million lives in Orissa alone; the famine of 1868 which visited Northern and Central India; the widespread famine of 1876–78, unequalled in horror since the beginning of the nineteenth century; the great famine of 1896-97 which affected nearly every province in India; and the terrible famine of 1899-1900, which cost about 10 crores of rupees in relief measures.

This brief survey is enough to indicate that famine is, by no means, an exceptional phenomenon of alien rule, though its recurrence in more recent times is often given an undue prominence in denunciation of the British rule in India. Further, if we take into consideration the various limitations of earlier times, particularly the absence of means of communications and of an organized famine relief policy, very little imagination is required to conclude that famines in pre-British days must have been more terrible in their consequences than those during the British period. As a result of the improvement in means of communication and the adoption of a systematic policy of famine relief, the meaning of the term famine has entirely changed. Though resulting from the same cause, viz. failure of crops, a famine no longer means, as it used to, 'suffering from hunger on the part of a large proportion of the population, but only temporary dislocation of employment on a large scale'. Briefly speaking, famines nowadays indicate a scarcity of employment rather than a scarcity of food.

Effects of Famines

There has been a considerable mitigation in the severity of famines owing to the change in their nature. Death from starvation is no longer regarded as a feature of famines in modern times. But death due to the various diseases that lie in the wake of famines is still very common; and those who can survive the calamity are often reduced in health, strength and capacity. Consequently there is a greater loss in man power than is generally indicated by the actual number of deaths. Famines lead to a loss in the revenues of the Government at a time when its expenditure is bound to increase. Trade and industry also suffer as the agriculturists who form the bulk of the population cannot afford to buy their wares.

Causes and Remedies

A famine, whether local or widespread, occurs whenever there is a failure of crops due to one or more of such causes as drought, flood, insect pest, wild animals and hail or frost. But the root cause of famine seems to lie in the poverty of the people which renders them incapable of bearing with loss in their agricultural income.

Of the immediate causes of famines drought is the most important. It can be counteracted to some extent by the extension of irrigation and afforestation. The introduction of dry-farming also will afford an effective remedy against the scarcity of water. Floods can be checked by the improvement of the drainage system. As for insects the remedy lies in the discovery of means for their destruction, and administering the antidote, if necessary, by spraying from aeroplanes. The problem of wild animals presents a difficulty inasmuch as some of them, as for example monkeys, are held in veneration by Hindus. A change of attitude in this respect is, however, already noticeable and the issue of gun licenses for crop protection on a more liberal scale should solve this problem. So far as hail or frost is concerned man must still be subject to the whims of nature.

The Problem of Poverty

The most serious obstacle with which we are faced in this connection is the problem of poverty, about which there has been a considerable difference of opinion. But whatever differences of opinion there may exist in other respects, there is hardly any dispute as to the fact that the Indian people are very poor. As to whether they are poorer or not than before and whether their poverty is increasing or decreasing, opinion again seems to differ. It is often asserted that in the past there were no economic troubles, no misery, no destitution. According to this imaginary view poverty in India is a comparatively recent phenomenon and it has since been on the increase. The more correct view, on the other hand, holds that there is now less poverty than before and that it has of late been slowly but steadily decreasing.

It should be borne in mind that no statistical information is available as to the condition of the people in pre-British India. Reliance has, therefore, to be placed on the literature of the period. But such literature, besides being in most cases the work of courtiers of kings and rulers, is confined mainly to the description of life in higher circles in cities and capitals which must have naturally been fairly prosperous. Though there are occasional references to life and conditions in rural areas, the prosperity of which it speaks must, therefore, be taken in relation to the upper classes in cities and capitals rather than in relation to the people at large. Further, the external conditions of the country—the war and brigandage of rival chiefs and rulers, the absence of political and commercial security, the revenue policy of kings and the inadequacy of means of communication—were highly unfavourable to the existence of prosperity among the masses. As none of these disquieting factors exists under British rule, the view that the Indian people are poorer than before would appear hardly to be tenable.

As to whether the standard of living is rising or falling, opinions, as we have seen, again differ. A steady rise in the standard of living, particularly during the last thirty or forty years, and a consequent decrease in poverty is, it is held, suggested by the calculations of *per capita* income for different periods. These calculations, however, vary widely from Naroji's estimate of Rs. 20 in relation to the year 1870 to Shirras' estimate of Rs. 110 for 1930. The different estimates are based on different methods and so, apart from their accuracy, they are of very little use from the point of view of comparative study. That there has been a gradual increase in the country's wealth would seem to be beyond question ; but it is difficult to answer whether there has also been a proportionate increase in the prosperity of the masses. The few intensive enquiries that have recently been made into the conditions of the people in certain local areas would seem to suggest a rise in the standard of living. The rise is more visible in towns and cities than in villages because of the total absence of the amenities of civilized life in rural parts. Nevertheless the villagers are not entirely unaffected and an average Indian, whether in a village or in a town, according to these surveys, enjoys more salt, more sugar and more cloth. He is also supposed to be better off in respect of his household utensils and other conveniences of life. Making allowance for the limited character of these surveys which apply only to particular localities, it may be concluded that there has, of late, been a tendency towards a rise in the standard of living. But as this tendency is being constantly held in check by various factors, such as defective distribution, unwise consumption and pressure of population, the conclusion that the standard of living has, on the whole, been stationary would appear to be almost irresistible.

Causes of Poverty and Remedies

As early as 1880 the Famine Commission observed, 'at the root of much of the poverty of the people of India and the risks to which they are exposed lies the important circumstance that agriculture forms the sole occupation of the masses of population'. The two chief causes of poverty are, therefore, the pressure on land and the exclusive dependence on agriculture. Besides these two there are also other causes such as the low and uncertain yield from land, the improvident habits of the people, the existence of customs inimical to economic progress, and the earth's becoming man-heavy.

The pressure on land can be partially reduced by stimulating the growth and development of industries so that a greater number of people may find employment in them. Industrialization, however, will take time and is likely to involve a painful process of adjustment. The true remedy, therefore, seems to lie in the restriction of the growth in numbers. Exclusive dependence on agriculture is due to the absence of subsidiary industries. The defect can be checked and sources of supplementary income provided for the cultivators by the development and introduction of cottage industries. The defect relating to the low and uncertain income from land can be removed by the extension of irrigation facilities and co-operative societies and by the introduction of better methods, better implements and rotation of crops. The improvident habits of the people, the deleterious social customs and the tendency to grow and multiply cannot be completely uprooted unless and until the mental outlook of the masses has become wider through the spread of education.

Famine Relief

The various causes bringing about a state of famine, though remediable, are not likely to disappear all at once. Hence there arises the necessity of supplementing the preventive measures described above by an efficient organization for affording immediate relief whenever famine breaks out. Consequently every province in India has got its 'famine code' which contains a full programme of the various steps to be taken at different stages of a famine.

Standing preparations include the maintenance of a famine relief fund. There are also arrangements for the careful study of climatic conditions and of conditions of crops so that with the mere indications of the first signs, the Government may proceed with the preliminary steps which include:

(1) The declaration of policy by the Government;

(2) The enlistment of non-official help;

(3) The suspension of land revenue taxation;

(4) The offer of loans for purposes of agriculture;

(5) The organization of relief circles, the inspection of villages and the preparation of preliminary lists of helpless persons; and

(6) The opening up of test works at different centres.

During the next stage, the stage of actual relief:

(1) The test works if they are attended by a large number of people are converted into relief works in which all who are capable of working are entitled to get employment. Payment is made according to the principles laid down in the famine code but must not be below the 'lowest amount sufficient to maintain health'. Relief works include the construction of roads, canals and similar other works of public utility;

(2) Gratuitous relief is given in villages to those who cannot leave their homes for physical infirmity or other reasons;

(3) Poor-houses are opened in towns for those who have no homes and who cannot work at relief centres. Village kitchens are started for the dependents of persons engaged in relief works; and

(4) Special arrangements are made for giving relief to 'pardanashin' women and respectable people.

During the last stage which begins with the rains:

(1) People are gradually transferred from the bigger relief works to village relief works so that agricultural operations may begin in due time;

(2) Local gratuitous relief is extended and loans are given for the purchase of cattle, seeds and implements.

Relief operations are ultimately closed with the harvesting of the next crops. All the time the Medical and the Public Health Departments are kept ready to deal with the various diseases, such as cholera, dysentery, etc., which generally break out during the last stages of famines.

Famine Insurance Fund

The financial machinery set up for fighting famines is the 'Famine Insurance Fund'. Provision for a separate annual grant for famines was made for the first time in 1878 in pursuance of the recommendations of the First Famine Commission. It was decided that the Government of India should set apart in every year's budget a sum of Rs. 1½ crores to be spent partly on relief and partly on protective works. It was out of this grant that allowances were made for the different provinces according to their needs. Later on famine relief came to be regarded as a divided head of expenditure, two-thirds of which were contributed by the Central Government and one-third by the Local Governments. With the introduction of the Reforms the entire responsibility of famine relief has been transferred to the provinces and every province has to provide for its own famine insurance by setting apart a fixed sum in its annual budget. The unspent portion of the annual allotment forms part of the Central balance on which interest is paid by the Government of India. When the total accumulation amounts to six times the annual grant in the case of any province the Provincial Government concerned may be exempted by the Central Government from making any further grant in its annual budgets. The fund is available for expenditure on account of (1) famine relief, (2) the construction of protective works, and (3) the granting of loans to cultivators.

CHAPTER IX

IRRIGATION

Its Importance

Irrigation has always played a conspicuous part in agriculture in India on account of the precarious nature of the rainfall. In certain parts of the country rainfall is so abundant as to make irrigation superfluous ; in a few others it is so scarce as to make crop production impossible without irrigation ; but throughout the greater part of the country rainfall, though on the whole sufficient, is so ill-distributed that without irrigation there can be no assurance to the cultivator that his crops will mature. 'Irrigation, therefore', as Sir T. R. J. Ward points out, 'if only by village tanks or wells, has always been an accompaniment of cultivation in many parts of India'.

Progress of Irrigation

The earliest irrigation works consisted mostly of tanks and wells besides a few canals built in Northern India. Modern irrigation began in 1819 and since then remarkable progress has been made not only in British India but in some of the Indian States as well. The progress of irrigation under British rule can be divided into four distinct periods. During the first the East India Company maintained and improved the existing works and built new ones out of revenue surpluses. In the next period beginning from 1858 the Government realized the essential importance of irrigation as an insurance against famines and adopted a new policy of constructing productive works, raising loans when necessary. But the inadequacy of this arrangement as a protection against famines was clearly demonstrated by the Irrigation Commission of 1901 and the third period began when on the recommendations of that body the Government decided to devote a portion of the Famine Insurance Fund for the construction of protective irrigation works. The fourth period was inaugurated with the Reforms of 1919.

Prior to the Reforms irrigation works were, from the point of view of their financial sources, divided into three classes: 'productive works', that is, those of a remunerative character which could be financed by raising loans; 'protective works', which were not likely to prove remunerative but were yet necessary for providing protection against famines, and the cost of which was met from the Famine Insurance Fund; and 'minor works', which included all those that could not be classed as either productive or protective, and the cost of which was met from the general revenues. With the changes introduced by the Reforms, Irrigation became a provincial subject and the Provincial Governments were empowered to construct protective works by raising loans when necessary. Consequently the old classification lost all significance, and irrigation works are now classified as 'productive' or 'unproductive' irrespective of the sources from which they are financed.

From 1921 onwards there has been rapid progress in the construction of irrigation works, some of which have already been completed while others are yet under construction. Of those already completed the Sukkur Barrage in Sind, which cost over 20 crores of rupees, is the biggest of its kind in the world and is calculated to irrigate about 5·5 million acres. The total amount hitherto spent or sanctioned for irrigation is in the neighbourhood of Rs. 125 crores and the total area under irrigation is well over 40 million acres.

Irrigation in Bengal

It appears that Bengal lags far behind the other provinces in respect of her irrigation projects. But it should be remembered that rainfall in most parts of Bengal is fairly regular and that owing to her possession of an extensive river system with a multitude of smaller tributaries and streams which act as irrigation channels and spread the flood water far and wide Bengal, especially Eastern Bengal, depends less on rainfall than the other parts of India. The problem with which she is faced is one of superfluity rather than of scarcity of water. Even in Western Bengal, where there is considerable scope for irrigation, the liability of low-lying lands to inundation by river flood is a serious obstacle to the extension of cultivation of such a valuable crop as sugarcane. What Bengal needs is, therefore, an adequate system of drainage rather than an extensive system of irrigation. An improvement of the existing drainage system, besides providing scope for the extension of cultivation will, also, remove the difficulties of communication by water and act as an effective check against malaria and other water-borne diseases.

Of the important projects hitherto undertaken in Bengal, the most important are the Damodar Canal, the Barkeswar Canal, and the Midnapore Canal. The Damodar Canal was begun in 1926-27 and is, when completed, designed to irrigate about 200,000 acres of land, mostly paddy, in the Burdwan and Hooghly districts. The Barkeswar Canal in Birbhum was commenced in 1927 and will, when completed, irrigate 10,000 acres of paddy land in a tract subject to frequent scarcity. The Midnapore Canal which provides facilities for both irrigation and navigation irrigates about 60,000 acres of land. The Eden Canal in the districts of Burdwan and Hooghly, which was originally constructed for sanitary purposes, is now used for irrigation also.

The notable feature of Bengal is, however, the part played by co-operation in the development of irrigation. Systematic steps are being taken to establish a network of co-operative irrigation societies in the district of Bankura which is one of the hottest and driest districts in Bengal. There was, up to April 1931, a total of 339 irrigation societies, mostly in Bankura and Birbhum, and the total area irrigated by them was estimated at 92,100 bighas. Their work includes smaller projects such as the re-excavation of silted tanks, the building of small weirs and the cutting of serviceable irrigation channels. In addition to these minor schemes several bigger projects also have been undertaken on a co-operative basis. One of them, the Salbundh scheme, has been carried out by the Salbundh Co-operative Society at a cost of Rs. 63,977 and the total area irrigated is about 2,000 acres.

Classification of Irrigation Works

Irrigation works in India are classified under four heads: canals, tanks, wells, and other sources.

Of the total irrigated area in India more than half is irrigated by 'canals', which include 'all works of any considerable size for diverting the water of streams or rivers, and carrying them on to the land'. The biggest and the most important works of canal irrigation include the Sukkur Barrage in Sind, the Sutlej Valley project in the Punjab, the Mettur Dam in Madras and the Sarda Canals in the United Provinces. The most gigantic of them all is the proposed Tungabhadra scheme of Madras which is estimated to cost Rs. 31·51 crores and to irrigate 1,100,000 acres of land.

'Tanks' include 'all works for the storage of water, all natural depressions of which the water is used for irrigation'. Tanks have been an accompaniment of agriculture in India from very early times. There are about 40,000 tanks in Madras, 50,000 in the Central Provinces, and a similar number in Mysore and Hyderabad. Tank irrigation is practically unknown in the Punjab and Sind but is common in other parts of India. The total area irrigated by tanks is about 6 million acres.

'Wells' include works for giving access to the subsoil water supply which, running deep below the level of the ground, has to be lifted vertically before it can be used for flow irrigation. The importance of well irrigation can be realized from the fact that nearly a quarter of the total irrigated area is irrigated by wells. In recent years a great advance has been made by inventions in tube-wells and in pumps and with the availability of electric power a great expansion in their use is expected, especially in tracts where the lifts are too great for bullock power.

'Other sources' consist mostly 'of temporary bunds for the storage of rainfall, of lift irrigation from rivers, and of channels from rivers and streams which are too small to be classed as canals'. Nearly 5 million acres of land are irrigated from these sources.

Advantages and Disadvantages of Irrigation

The principal advantages are:—

1. It facilitates the extension of cultivation in areas subject to scanty or precarious rainfall and thus relieves the pressure on land;

2. It leads to an increase in the agricultural wealth of the country ;

3. It affords an effective protection against famines and scarcity ;

4. It leads to an increase in the revenues of the Government. Besides the increase in land revenues there is also a considerable improvement and expansion of the receipts from taxation and railways, which follows from the growth in general prosperity, trade and commerce.

But as experience in the Punjab and elsewhere has shown there are also serious disadvantages, the chief of which are :—

1. A large part of the stored water is wasted through percolation and leads to water-logging, which has proved a serious menace to agriculture in the Punjab ;

2. The dampness produced by water-logging breeds malaria and impairs the health of the people ;

3. Canal irrigation sometimes deposits alkali on land, leading to deterioration of the soil ;

4. 'When water for irrigation is obtained by constructing dams across rivers the cultivators of the river valleys', as Dr. Panandikar points out, 'are deprived of the supply of water from floods, and their land has, therefore, to be thrown out of cultivation'.

CHAPTER X

TRANSPORT AND COMMUNICATIONS

Introductory

One of the essential conditions of the prosperity of a country is its possession of facilities for transport and communications. The contribution they make to efficiency in administration or to the growth of social solidarity can hardly be exaggerated ; but above all else is the contribution they make to the economic well-being of a people. The economic prosperity of England in the latter half of the nineteenth century was due not a little to the improvement in her means of transport and communications. The far-reaching inventions of the twentieth century are likely to revolutionize the transport of the future. Events, especially of the last two or three years, have unmistakably proved that the future of the world lies with a satisfactory solution of the problem of distribution, but distribution is inextricably bound up with transportation.

India has been very sluggish as regards industrial progress and one of the weightiest factors accountable for this lag has been the absence of adequate facilities for transport and communications. As late as the mid-nineteenth century India had very limited means of communications, except in her watercourses in respect of which she is naturally deficient. A change, however, came during the time of Lord Dalhousie, who initiated and laid down a vigorous public works policy which ushered in the industrial revolution. Since then remarkable progress has been made in the development of railways and posts and telegraphs. Road development, however, did not receive the attention it deserved till quite recently and waterways are yet in an unsatisfactory condition. Civil aviation may be said to be only in its infancy in India.

RAILWAYS

Railway Policy of the Government of India

The earliest policy of the Government in regard to railways was to encourage private enterprise under contract made with companies such as the East Indian and Great Indian Peninsular Companies. Interest on capital was guaranteed and Government reserved the option to purchase the lines after twenty-five or fifty years. The system, however, proved burdensome to the State because the companies failed to earn the stipulated rate of interest and Government was, therefore, required to make good the deficiency.

Consequently in 1869 it was decided that no fresh contract should be made under the guarantee system and that railway construction should be undertaken by direct Government agency. But owing to financial stringency the Government could not push on with a vigorous programme of construction, while the constantly recurring famines demanded an accelerated programme for the extension of communications.

So by 1879, Government was compelled to have recourse to company agency again but on terms more favourable to Government than under the old guarantee system. In some cases, as in the case of the Bengal and North-Western Railway, Government gave no guarantee as to interest on capital ; in others, as in the case of the Bengal-Nagpur Railway, interest was guaranteed at a very low rate on that portion of the capital which was provided by the company, the other portion being provided by the State. Management, however, was left with the companies but Government reserved the right to purchase the lines after a stated term of years.

The twentieth century has been marked by notable progress in railway construction, except for a brief period during and after the War. As early as 1900 the railways had turned out to be a profitable concern of the State. Public opinion in this country became critical of the management of the railways by companies with London domicile and there was a great controversy as to the comparative merits and demerits of State versus Company management. The modern tendency, however, seems to be definitely in favour of State ownership and direct management by the State. The State has already come to be the owner of the major portion of the Indian railways, partly by construction and partly by purchase ; and a little less than one-half of the whole system is under direct State management.

It is, therefore, safe to assert that in course of time the entire railway system in India will come under the ownership and management of the State. The railway programme, however, has had to be severely restricted owing to the economic depression in recent years.

The Railway System in India

Since the opening of the first railway in 1853 there has grown up an extensive system of railway communications all over the country. With her 42,000 miles of railway, which is about double that of Britain, India occupies the third place among all the countries of the world. But even this vast system is not quite sufficient considering the wide extent of the country and its requirements. Of the total mileage, which represents a capital outlay of about Rs. 835 crores, about 75 per cent. is owned and 47 per cent. directly managed by the State. The whole system employs more than 800,000 men of whom over 400,000 of all grades are Government servants.

The total length of railways in the province of Bengal is about 3,300 miles. This appears to be inadequate in view of the total area of the province which is 82,000 sq. miles. But Bengal, it should be remembered, possesses enormous scope for water transport. Nevertheless, there is still scope for the further development of railways in this province as there are many parts where there is no facility for water transport.

Railway Administration

The control exercised by the Government is not confined to State-managed or State-owned lines only but also extends to a limited extent to company-managed systems. For this purpose there has come into being under the Department of Commerce a separate body known as the 'Railway Board'. The Board consists of a Chief Commissioner, a Financial Commissioner and three members and is assisted by five directors who are experts in civil engineering, mechanical engineering, traffic, finance and labour. A reduction in the number of members of the Board is under contemplation and there are indications that in future the Board will consist of a Chief Commissioner, a Financial Commissioner and one member only.

Under existing arrangements the administrative control in the case of each railway is centralized in the 'Agent' or administrative head of the whole railway. For efficient working each railway is divided into a number of sections or divisions, each of these being placed in charge of a divisional officer directly responsible to the Agent.

Since 1925 railway finance has been separated from general finance. Owing to economic depression, since 1930 the railways have been very severely hit and are at present working at enormous loss. The total loss for the year 1931-32 has been estimated at Rs. 9·5 crores while the budget figures for the year 1932-33 estimate a probable loss of Rs. 7·59 crores.

Advantages of Railways

1. From the political point of view the development of railways has been an essential factor in knitting together the various parts of this subcontinent into one administrative system and 'in enabling the formerly elusive ideal of a united India to come within the range of realization'. Any disorder within the country or on its borders can be quickly and effectively dealt with by sending troops to the part or parts affected.

2. From the social point of view the railways have brought about a cultural revolution by widening the range of interests and opportunities amongst all classes and bringing the hundreds of thousands of isolated villages into contact with one another and with the world outside.

3. From the economic point of view the railways have benefited the country in more than one way. They have contributed to the growth and development of modern industry and trade more than any other single factor taken by itself. They have stimulated the growth of manufacturing industries by providing facilities for the cheap carriage of coal and raw materials as well as of finished products. They have destroyed geographical barriers so that labour in India has become mobile and is easily available for the manufacturing industries. The railways' demand for fuel has given rise to the coal industry and the demand for railway materials in vast quantities has promoted the growth of the iron and steel

industry and also of timber works. The vast network of railways throughout the length and breadth of the country has given a great impetus to the agricultural industries also, since agriculturists now get better price for their products which can be conveniently moved and marketed.

By facilitating the movement of goods between different parts of the country and between the ports and the interior, the railways have led to an enormous increase in the country's trade—internal as well as external. Things, even perishable commodities, produced in one corner of the country easily find their markets in another. An idea as to the growth of the volume of trade can be gathered from the fact that during the year 1928-29 about 90 million tons of goods were carried over the Indian railways. Manufactured products of foreign countries are now to be seen in the remotest village markets of India, and Indian products supply the raw materials of industries situated in distant lands. It is the railways that have worked this wonder. The enormous growth in India's foreign trade (sea-borne), amounting to about Rs. 589 crores in 1928-29, is due, to a very large extent, to the development of her railways.

By providing facilities for the speedy movement of foodstuffs from one part of the country to another the railways have reduced the severity of famines arising from local failures of crops. Death from starvation due to the scarcity of food is now practically impossible.

The railways have provided a large number of people with the means of livelihood by giving them employment. Over 800,000 people are supported by railways in India.

The railways have led to an increase in the revenues of the Government directly as well as indirectly. Directly because railway profits are an important source of Government revenues, and indirectly because the development of industry and trade resulting from railway extension leads to an increase in the receipts from the customs and other taxes. It should be noted however that the fall in railway earnings in recent years due to the economic depression has made it impossible for the railways to contribute anything to the general revenues of the Government.

Disadvantages of Railways

The extension of railways has, however, been attended with certain unwelcome features.

The centralization in administration due partly to the extension of railways has been the most serious obstacle to the development of the old ideal of village self-government in India.

The easy movement of people from one part of the country to another has intensified the struggle for existence.

As a result of the introduction of cheap machine-made goods from foreign countries into Indian markets, some of the indigenous industries have been destroyed.

There has, therefore, been an increasing pressure on land and a tendency towards the diminution of the agricultural wealth of the country.

A greater number of people than before are now susceptible to famine because consumers in any one locality are no longer in a position to enjoy the bumper crop raised in favourable years.

The railways obstruct the natural drainage system and are held responsible for the prevalence of malaria and other diseases, as for example in certain parts of Bengal.

The railway embankments prevent the free flow of water and are supposed to be responsible for the intensity of floods, as for example in various parts of Assam.

ROADS

Importance of Roads

Roads are a necessary adjunct to railways and for rural areas or areas sparsely populated roads are more economical than railways. The importance of roads has enormously increased in recent years owing to the development of motor transport.

Road Development in India

The national importance of roads was not fully realized in India till the second decade of this century. Even prior to the Reforms of 1919 roads were primarily the concern of provincial and local authorities. Under the Reforms roads were included in the list of transferred subjects in all the provinces except Assam. The different provinces did not follow any systematic policy for the country as a whole and some of the projects were apparently beyond the means of Provincial Governments. Ultimately the need for a systematic road policy began to be keenly felt with the gradual growth of motor traffic, and in 1927 the Road Development Committee (presided over by Mr. M. R. Jayakar) was appointed.

As a result of the recommendations of this Committee a Central Road Fund has been created out of an additional duty of two annas per gallon on motor spirit levied since July 1929. Of the total annual grant for road development a certain proportion is retained by the Central Government as reserve, the remainder being apportioned among the Provinces in proportion to their petrol consumption. A Standing Committee for Roads is set up every year at the Centre, and Road Boards are set up in the Provinces to advise their respective Governments on all questions relating to road development. Periodical Road Conferences have also been provided for with a view to facilitate the adoption of a continuous and systematic programme for the whole country.

The change in policy indicated above no doubt marks a substantial advance ; but satisfactory progress in road construction is not likely to follow unless a bigger share of the tax on motor spirit is made available for road development. It has also been suggested that the revenues raised by the taxation of motor spirit should be capitalized by floating loans for road-construction purposes. The suggestion deserves the most careful consideration, for it is evident that with the funds at present available the provinces can scarcely follow a comprehensive scheme of road construction. It is the realization of this difficulty which led Bengal to pass the Motor Vehicles Act of February 1932.

Bengal possesses a poor system of roads, poorer than in any other province in India except Assam. Outside Calcutta, apart from the Barrackpore and Grand Trunk Roads, roadways with good metalled surfaces are practically non-existent. For the development of the rural areas of the province the existing road system stands in need of rapid improvement and the Motor Vehicles Act is the first step towards realizing that ambition. The Act proposes to levy a tax on motor vehicles uniform throughout the whole province. The proceeds of the tax are to be earmarked for expenditure on the improvement of roads. Out of the total proceeds a guaranteed sum of Rs. 4½ lakhs will go to the Calcutta Corporation, while the balance will be available not so much for large new capital works (for Bengal's share, about Rs. 6 lakhs a year, of the Central Road Fund, is already earmarked for that purpose) as for supplementing the funds of local authorities for the maintenance and improvement of existing roads.

The Road System in India

India has a total of about 220,000 miles of roadways, nearly 60,000 miles of which are metalled. But all the metalled roads are not all-weather roads according to European standards. The following classification has been adopted for roads in India:—

1. Arterial Roads or Main Roads, that is, roads which are important from the point of view of more than one province, or from the point of view of a whole province or of a considerable portion of it.
2. Feeder or Subsidiary Roads, which connect rural areas with the railways or the main roads.
3. Roads of purely local importance which are 'Kachcha' or unsurfaced roads.

The main roads are maintained by the Public Works Departments in the several Provinces, while the other categories are left to the care of local authorities for which they get financial assistance from the Provincial Funds.

WATERWAYS

The Problem of Waterways

Waterways serve the triple purpose of irrigation, drainage and transport. In an agricultural country like India, with cheap and bulky articles as her principal items of commerce, the importance of riverine communications, which are less costly in use than other forms of communication, can scarcely be exaggerated. Though India is not adequately provided with waterways and though some of her rivers are unfit for navigation because of their rocky beds or strong current, yet the few that are navigable are free from seasonal interruptions. In spite of their manifold advantages the economic importance of waterways does not seem to have been realized in responsible quarters. Recently, however, the problem of waterways has evoked a good deal of interest and valuable suggestions have been made for co-ordinating the various transport services of the country. It is hoped that systematic steps will be taken to improve and develop the existing waterways as highways of commerce and that, like railways, waterways will be made a Central subject so that their services may be co-ordinated as has been done in the United States of America, and Germany and other European countries.

The question is particularly important for Bengal because her principal mode of transport is by waterways and because she possesses natural facilities for the development of water transport. Bengal, be it noted, has 20,000 miles of major waterways, besides the numerous minor ones. Further, the problem of water-hyacinth, a veritable pest of agriculture in Bengal and Assam, is intimately connected with the problem of waterways. So in pursuance of the recommendations of the Agricultural Commission the Government of Bengal appointed in 1930 a Committee of Experts to consider the various questions relating to the formation of a Waterways Board and to make recommendations. In pursuance of the recommendations of the Committee a scheme was drawn up for the improvement and maintenance of waterways in Bengal. The scheme includes the formation of a Waterways Trust, resembling the Calcutta Improvement or Port Trusts, with separate revenues for the administration and maintenance of waterways as well as for dealing with the water-hyacinth pest. The Provinces of Bihar and Orissa and Assam also were asked to participate in the scheme. The fruition of this scheme is expected to provide a satisfactory solution of the problem of water transport including that of water-hyacinth and possibly also of floods, to some extent at least.

Waterways versus Railways

Waterways so far as they are provided freely by nature entail no cost of construction, whereas the cost of constructing railways is enormous and is greater even in comparison with the cost of constructing artificial canals.

As far as maintenance charges are concerned waterways are less costly than railways.

Water transport is cheaper and more convenient for bulky articles and hence more suitable than railways for an agricultural country like India.

Water transport, however, is slow in comparison with railway transport, but waterways perform two other important functions, those of irrigation and drainage.

Waterways irrigate and also fertilize the land through which they pass and thus stimulate agricultural production. Railways possess none of these advantages ; on the other hand, they are apt to injure crop production in areas where they create barriers to the natural drainage.

Waterways act as nature's drainage and so tend to improve sanitation, whereas railways tend to obstruct the natural drainage system and, therefore, promote malaria and other diseases.

Waterways help the free flow of water and, therefore, lessen the intensity of floods, while railways obstruct the free flow of water and consequently increase it.

Civil Aviation

Of all the existing means of transport aviation is the most modern ; but it is difficult to overestimate the part that aviation is destined to play in the solution of the transport problem of the future. Aviation has already reduced the distance between India and a few other countries of the world including England. A regular Air Mail Service between India and England was started as early as April 1929, the journey either way between Karachi and Croydon taking about seven days. Since then considerable improvement has been made in timing and other things and the service is now open to regular passenger traffic. India is also connected with South Africa by an air mail service, and the Royal Dutch service connects Calcutta with Holland and Java ; the French air line also links up India with France and Indo-China. Within the country also there has been some progress in aerial navigation. A regular service is run between

Karachi and Delhi and recently the Jodhpur Flying Club has undertaken to carry air mail for Bombay over the greater part of its journey. The Tata Company proposes to open a new service between Karachi and Madras via Bombay and arrangements are also on foot for extending the air mail service from Delhi to Calcutta.

A number of air-routes have been established all over the country with hangars and aerodromes provided at important centres like Karachi, Calcutta, Delhi, etc. Landing grounds have been prepared at important points on the several routes for the convenience of emergency landing. The Flying Clubs at Calcutta, Delhi, Lahore, Bombay and other places are making satisfactory progress and many of their members, Europeans as well as Indians, have already obtained their pilot's 'A' licence. Up to December 1931 63 'planes were registered in India. Arrangements have also been made for the training of Indians in civil aviation in England and up to December 1931, nine Indians had been trained or were under training as ground engineers. The creation in February 1931 of the Irwin Flying Fund with a donation of a lakh of rupees by Sir Victor Sassoon, and the offer of the Viceroy's Cup in December 1931 by Their Excellencies the Viceroy and the Countess of Willingdon for an annual air race in India on much the same lines as the King's Cup air race in England, are sure to stimulate the development of aviation. But it is needless to point out that in this respect India is lagging far behind other countries and a good deal more is yet to be done for a satisfactory progress of civil aviation in this country.

Posts and Telegraphs

Posts and Telegraphs, both of which are worked by the Government of India, are united under a Director-General. For efficiency of administration the whole country is divided into a number of circles, each in charge of a Post-Master General under whom there is a Deputy Post-Master General for every range.

Besides carrying letters, newspapers, money-orders, parcels, etc., the Postal Department performs a variety of functions. It is calculated to promote thrift by the facilities it offers for the life insurance of Government employees, for the purchase of Government Cash Certificates, and for the safe deposit of one's savings. The provision it makes for the sale of quinine is calculated to counteract the spread of malaria in rural areas. The village postman has aptly been described as a 'perambulating public utility agent' forming almost the only link between the rural population and the world outside.

Statistics for the year 1930-31 bear abundant testimony to the magnitude of the operation of the Department. At the close of the year there were 115,205 postal officials, 24,175 post offices and 169,558 miles of mail lines. During the year 1,299·7 million articles, including 54 million registered articles, were handled ; postal stamps worth Rs. 63 millions were sold ; over 39 million money-orders of the total value of Rs. 864·8 millions were issued ; a sum of Rs. 247 millions was collected on value-payable articles ; over 5 million insured articles valued at Rs. 1,387·5 millions were handled. Customs duty aggregating over 6·6 million rupees was realized on parcels and letters from abroad and 14,091 lbs. of quinine were sold to the public. On 31st March 1931 there were 2,477,613 savings bank accounts with a total balance of Rs. 370 millions and 79,058 postal life insurance policies, with an aggregate assurance of Rs. 148·6 millions.

The number of telegraph offices opened for paid traffic at the close of the year was 10,540, consisting of 104 departmental telegraph offices, 17 radio offices, 4,297 combined post and telegraph offices, 6,111 railway offices and 11 canal offices. In addition 9,635 post offices were authorized to accept telegrams for despatch by post to the nearest telegraph office.

The headquarters of the Wireless Engineering Division remained in Calcutta ; the name of this Division was altered to the 'Eastern Wireless Division' and a new division designated the 'Western Wireless Division' was created in December with headquarters at Bombay. About one-half of the wireless stations previously under the Wireless Engineering Division were transferred to the control of the Western Wireless Division. It may be noted in this connection that the development of wireless broadcasting, which is considered as an instrument of culture and entertainment, has hitherto been disappointing. The Indian

Broadcasting Company with its two broadcasting stations at Calcutta and Bombay failed and Government undertook direct control of the two stations. Though under Government control the financial position of broadcasting is now better, yet it is far from satisfactory.

Some improvements were noticed in the Telephone service, also, and there was a number of trunk lines connecting the important centres. But as the telephones in larger towns are worked by licensed companies and as there is an immense variety of languages and accents throughout the country, the Telephone service has not been able to make rapid progress. Yet there is no doubt that the existing system is capable of further extension and improvement.

On the financial side, however, the achievements of the Department were anything but satisfactory. The post office receipts for the year amounted to Rs. 7,50,91,371 and the total charges to Rs. 8,13,00,583, the result being a net loss of Rs. 62,09,212. Telegraph receipts during the year amounted to Rs. 2,67,67,258 and the total expenditure to Rs. 3,28,93,992 with a resulting loss of Rs. 61,26,734. The receipts from radio telegraphs amounted to Rs. 2,94,086 and the total charges to Rs. 11,12,704, the result being a net loss of Rs. 8,18,618. The receipts from telephones amounted to Rs. 56,33,339 and the total expenditure to Rs. 58,28,083, with a resulting net loss of Rs. 1,94,744. The total net loss for the entire Department amounted to Rs. 1,33,49,308. The Postal Service was formerly a source of profit to the Government ; but in recent years its expenditure has considerably increased owing to the introduction of higher wages, while there has been a fall in its revenues as a result of the economic depression. As the aim of this Department is to render services to the public at the lowest possible cost, it can hardly be considered as a revenue-paying concern. Nevertheless, there is no reason why it should not be able to pay its own way.

CHAPTER XI

INDUSTRY

The Backward Position of Indian Industries

Formerly India was a country with many hand industries, but for various reasons these declined during the 18th and 19th centuries, with the result that her people came to depend almost entirely on agriculture. As early as 1880 the Famine Commission drew poignant attention to the adverse effects of the absence of industries on the economic life of the people. Since then there has been considerable progress as is evidenced by the increase in the number of joint-stock companies registered in India with rupee-capital. From 1,309 in 1895-96 with a paid-up capital of Rs. 29 crores, their number had increased to 6,330 in 1928-29 with a paid-up capital of 279 crores. Further, there has been a remarkable increase in production in the five big industries, viz. jute, cotton, iron and steel, coal, and tea. Yet the progress has not been anything like satisfactory or substantial from the point of the enormous resources of the country or the needs of her people. This is borne out by the figures of the country's trade. Roughly speaking, about 75 per cent. of her imports still consists of manufactured articles, while about the same proportion of her exports consist of raw materials. Besides, as the Central Banking Enquiry Report points out, 'India is almost wholly dependent on foreign countries for the plant and machinery and chemicals which she requires and the production of which may be regarded as the index of the industrial progress of any country'.

Causes of Industrial Backwardness and their remedies

The slow progress of Indian industries can be accounted for in two ways. In the first place, some of the conditions essential for industrial progress are not quite favourable; in the second, there is the absence of a vigorous State policy in relation to industrial development. The remedies, therefore, would seem to lie in an improvement of the various conditions, and in organizing State help in support of industries.

Conditions of Industrial Progress.

The essential conditions of industrial progress are—an adequate supply of raw materials, of capital, of labour, of technical skill, and of organizing ability, internal peace and security, banking facilities, means of communications and facilities for marketing.

As regards the possession of raw materials India is practically self-sufficient. She produces nearly everything necessary for the industrial requirements of a modern community. The variety of agricultural and mineral products holds out great possibilities for her industrial progress.

The situation, however, is not so favourable with regard to the supply of capital. It is not that capital is altogether scarce, but that there is a complete lack of adequate facilities for the safe investment of capital in industries. The absence of industrial banks accounts to a considerable extent for the shyness of Indian capital and is a serious obstacle to the rapid industrialization of the country. The need for industrial progress, therefore, calls for the rapid establishment of a special type of industrial bank to mobilize the country's resources for the promotion of new industrial undertakings and for the expansion of existing ones. It is desirable that the State should lend its active support for the establishment of such banks both by subscribing to their shares and by guaranteeing interest on their debentures.

It is true that in the past the supply of labour had not always been adequate but that was due partly to the absence of satisfactory means of communication and partly to the stay-at-home habits of the Indian people. In recent times, however, there has been a marked improvement in both these respects. Consequently the difficulty nowadays lies not so much in the scarcity as in the comparative inefficiency of labour in India. This is not an insuperable obstacle and the quality of labour will gradually improve with the spread of education and with an improvement in the standard of living of the labourer as well as in the conditions of factory life.

There is undoubtedly a paucity of technical skill at present. But this difficulty can be solved, as Japan solved a similar difficulty, by extending the facilities for technical and industrial training, by sending a large number of students abroad in order to learn the technique of the West, and by engaging foreign experts with a view to teaching those at home.

Organizing ability and industrial leadership are by no means very common anywhere in the world. The success so far achieved by Indians in this respect is in no way disappointing.

The peace and security prevailing in the country under British rule leave scarcely anything more to be desired in this respect for industrial development.

It must be admitted that existing banking facilities are not adequate for the industrial needs of the country. In the first place, there are no industrial banks, and the commercial banks cannot lock up their resources in long-term loans for the promotion of industries. In the second place, the commercial banks do not seem to follow a liberal policy even in respect of the short-term needs of industrial concerns. It is desirable that commercial banks should adopt a more sympathetic attitude, particularly towards the short-term needs of industries. At the same time it is also desirable that a special type of industrial bank should be set up with a view to provide the initial capital for the promotion of industries.

Though there has, of late, been a remarkable improvement in the means of communication, a good deal is yet to be done for the development of road and water transport. The railway net is fairly well spread but the rates policy of the different railways has not always been favourable to the growth of Indian industries. The gradual extension of State management is calculated to remove the present anomaly in this respect.

India herself offers an almost unlimited market for various commodities; and there is enormous scope for the development of foreign markets in respect of certain articles. But there is a lack of organization for marketing except probably in the case of cotton, jute products, and tea. The collection and dissemination of trade and commercial intelligence, the establishment of commercial museums and the appointment of trade representatives in foreign lands, will stimulate the sale of Indian products abroad.

The State in relation to Industries

As a commercial body the interests of the East India Company lay in organizing and financing Indian industries, such as cotton, silk, etc., from which its export trade was largely drawn. But this policy had to be changed under pressure from England and under the influence of the free trade principles which had gradually gained acceptance with the authorities both in England and in India. Attempts for the improvement of Indian industries became less frequent and the industrial policy of the State was confined to 'a very imperfect provision of technical and industrial education, and the collection and dissemination of commercial and industrial information'. With the exception of a few sporadic attempts made by certain Local Governments and the establishment at a later stage of Departments of Industries in some provinces, the general industrial policy pursued by the Government up to 1914 was a policy of non-intervention. Dissatisfaction at this indifferent attitude of the Government and discontent for the increasing economic dependence of India on foreign countries had begun to be expressed for some years before 1914. 'The Government of India, however, did not accept responsibility for giving active assistance to industries until after the outbreak of the Great War when the contraction of commerce in the West served to bring home in a striking manner the extent of India's economic dependence on Europe' (Banking Enquiry Report).

In 1916, the Government appointed the Indian Industrial Commission. In their report the Commission held that in future Government must play an active part in the industrial development of the country. The same view was expressed in the Montagu-Chelmsford Report of 1917. Under the reforms of 1919 the main responsibility for the development of industries by the State passed to the Ministers in the provinces. In spite of the financial difficulties and other limitations valuable steps in conformity with the recommendations of the Industrial Commission had been taken by the Provincial Departments of Industries in various directions such as technical education, research and investigation, development of cottage industries, financial assistance, etc.

Meanwhile with the cessation of War and with the return of Europe to normal conditions, the growing industries in India were again subjected to fierce competition of foreign products. The proposal for a protective tariff in India began to be seriously considered and the matter was ultimately referred to the Fiscal Commission of 1921. In their report the Commission expressed their disapproval of the free trade policy hitherto pursued by the Government. They advocated the adoption of a policy of 'discriminating protection' and for the establishment of an expert body called the 'Tariff Board' to decide the claims of industries asking for protection. The Government accepted these recommendations and a Tariff Board was established in 1923. The first practical step in the direction of protection was taken with the passing of the Steel Industry Protection Act of 1924. Since then a few other industries such as cotton, paper, sugar, etc., have been given protection. The policy of Imperial Preference has also been accepted by India, the preference so far granted being confined to cotton and iron and steel products of British origin.

The adoption of a protective policy marks a distinct change in the attitude of the Government towards industrial development. Yet there is still a considerable amount of feeling in the country that the State is not taking as much interest as it ought to in the development of Indian industries. There is no doubt that a more vigorous State policy, particularly in relation to industrial finance, technical education and marketing facilities, will speed up the rapid growth and development of industries in India.

Free Trade and Protection

The principle of free trade maintains that exchange of goods between different countries should be free from all restrictions whatsoever in the shape of either export or import duties. A free trade country may, however, impose import duties on foreign goods; but these should be clearly of a revenue, and not of a protective, character. The principle of protection maintains that international commerce should be regulated with the object of weakening foreign competition with domestic industries.

The main argument in favour of free trade between countries is, as Taussig points out, 'a simple corollary from the principle of the division of labour'. Exchange brings the same gain whether it is between individuals living in the same country or between those living in different countries. Things are obtained much more cheaply than by each individual producing everything for himself.

Though it is perfectly true that taking the whole world as a unit free trade would bring the greatest gain to every individual consumer, it is at the same time clear that such a policy might not always be to the best interests of all the countries considered as separate units. A country may have an abundant supply of raw materials and still it may not be able to push forward because of competition coming from countries which, though not in possession of any inherent advantage, are yet in a superior position simply by virtue of their earlier start. Hence even the strongest free traders admit that there may be exceptions to the general application of the principle of free trade.

The main argument for protection is the 'infant industry argument'. It advocates temporary protection for some selected industries which are specially suited to a country because of the existence of some inherent advantage, such as an abundant supply of raw materials or the special aptitude of the people. As such industries are not likely to be able to withstand foreign competition in their infancy, it is held that they should be given a favourable opportunity to grow by weakening such competition by means of a protective tariff. It is on this ground that protection is given to suitable Indian industries.

Classification of Industries

Industries may be classified into major and minor industries, the latter including both middle-sized and cottage industries.

Major Industries

The major industries are—cotton, jute, iron and steel, coal and tea.

Cotton

The first cotton mill was started at Calcutta in 1818 and the first mill at Bombay in 1854. Since then, for various reasons, the cotton industry has been concentrated mainly in Western India although in recent years a few mills have been started in Bengal also. The industry received a great stimulus during and after the Great War, and by 1928 the total number of mills in India rose to 279 employing 319,000 persons. But the cotton industry began to experience considerable difficulties owing to the formidable rivalry of foreign goods, chiefly from Japan, and ultimately Government had to come to its rescue by granting protection under the Cotton Industry Protection Act of 1930. In spite of a rapid development of the cotton and handloom industries since 1914 India is still far from being self-sufficient in respect of her demand for cotton piece-goods, a considerable quantity of which has still to be imported from foreign countries.

Jute

The jute industry is localized in Bengal where the first jute mill was started in 1855. This, also, received a great stimulus during the War and by 1928 the total number of jute mills had risen to 91 employing 339,000 persons. The export of manufactured jute rapidly increased, the total value for the year 1928-29 having been estimated at about 56 crores of rupees. Subsequently, however, the industry began to be badly affected due to both overproduction and a slackening in the world demand for jute products. As a result the exports in recent years have declined enormously both in quantity and in value. Various restrictive measures have since been adopted but there is as yet very little indication of a definite improvement in the jute industry.

Iron and Steel

The earlier attempts for the manufacture of iron and steel in India were destined to fail until the Bengal Iron and Steel Company was started in 1874. Then came the Tata Company which was formed in 1907. Since then a few more companies have come into existence. The iron and steel industry is concentrated mainly in Bihar. There was a rapid extension of it during the War. The production of pig iron had advanced from 35,000 tons in 1901 to 1,162,000 tons in 1927-28 besides that of steel which, too, had considerably increased. Owing to serious rivalry, chiefly that of continental products, the industry had to be protected and the first step towards protection was taken with the passing of the Steel Industry Protection Act of 1924. The development of the iron and steel industry has led also to the development of a number of subsidiary industries, such as tin-plate, wire and wire nails, agricultural implements, railway wagons, sulphuric acid, nitric acid, fertilizers, etc.

Coal

The coal industry owes its origin to the construction of railways and the consequent demand for a cheaper and nearer source of coal supply. Started in the eighties the industry comprises a number of joint-stock concerns working mostly in Bihar and Orissa and Bengal. It witnessed a rapid expansion during and after the Great War and the total production rose from about 16 million tons in 1914 to 25 million tons in 1925. Nearly 97 per cent. of India's demand for coal is met by home products and a considerable quantity is, also, exported. With the exception of Bengal coal, Indian coal is, however, inferior to foreign coal in point of quality.

Middle-sized Industries

These include leather works, woollen mills, paper mills, sugar factories, chemicals, rice mills, hosiery, oil mills, petroleum refineries, match factories, glass manufacturing, steel-wire and nails, cement, etc.

Leather Industry

India produces a large quantity of hides and skins but till recently the great bulk of it used to be exported in a raw or half-manufactured state. The indigenous leather industry was in a primitive state and produced only inferior kinds of leather. The establishment of the Government factory at Cawnpore in

1860 led the way for the adoption of modern methods of tanning. The industry received a further stimulus from the introduction of chrome tanning by the Madras Government in 1903. There has been a rapid expansion of the industry since 1914 and tanneries have been established all over the country, the most important centres being Agra, Cawnpore, Calcutta, Bombay and Madras. Further developments are expected as a result of the various measures adopted by the Government with a view to improving the industry. The proposed establishment of a branch factory near Calcutta by Mr. Tomas Bata of Czecho-Slovakia is likely to give a great stimulus to the leather industry of India.

Woollen Industry

This, also, is an indigenous industry in India existing mainly in the Punjab and the United Provinces. The most important centres are Dhariwal in the Punjab and Cawnpore in the United Provinces. A number of mills have been started but the industry is faced with competition of foreign products coming chiefly from Germany and Italy. Further, the comparative scarcity of raw materials of a superior quality is a serious obstacle to the rapid development of the woollen industry.

Paper Mills

The indigenous paper industry is no longer in existence. Its place has been taken by the modern mill industry. The production of machine-made paper dates from 1870 when the Bally (in Bengal) mills were established on the Hooghly. Since then a few more mills have been established at various places and their total annual production amounts to about 40,000 tons. Indian paper is made mainly from 'Sabai' grass which grows abundantly in Northern India. Bamboo pulp which is now used to a smaller extent holds out enormous possibilities for the future. Inferior and cheaper kinds of paper are made from rags, hemp, waste jute and paper. Owing to severe competition from foreign countries, especially Scandinavia and Germany, protection has now been afforded to pulp and pulp-made paper in India.

Chemicals

Heavy chemicals, such as sulphuric acid, nitric acid, etc., are, like iron and steel, the key industries because they provide the essentials of industrial development. India possesses vast stores of raw materials necessary for the production of sulphuric, hydrochloric, and nitric acids, coal-tar, alkalis, and various carbon compounds ; yet she depends largely upon foreign chemicals. The few chemical works in the country, notably the Bengal Chemical Company of Calcutta and the Eastern Chemical Company of Bombay, have been doing much valuable work and considerable success has been achieved in the manufacture of sulphuric acid—one of the most essential elements of industrial progress. But in other respects the progress has not been so remarkable and there is everywhere the keen competition from countries like Germany and the United Kingdom. The national importance of the chemical industry demands that its development should be promoted by all possible means.

Match Industry

The match industry in India is of comparatively recent origin. It came into being as a result of the revenue duty on imported matches imposed in 1922. Since then a number of factories has been established, including those belonging to a Swedish Combine. The industry has been making satisfactory progress as is evident from the fact that the import of foreign matches declined from 13·6 million gross in 1921-22 to 1·5 million gross in 1928-29. In order to ensure the steady progress of the industry, the revenue duty on matches has now been converted into a protective duty. India has abundant sources of raw materials and consequently there are possibilities of a wide expansion of the match industry in this country.

CHAPTER XII

THE COTTAGE INDUSTRIES

Place of Cottage Industries in a Scheme of Industrial Progress

A plea for industrialization does not necessarily presuppose the extinction of small-scale industries. Industrial progress under existing conditions calls, no doubt, for an increasing use of machinery and a consequent deathblow to the handicrafts ; but there are obvious exceptions to this general tendency. There are industries which, by their very nature, offer no scope for large-scale production. Again, there are small industries, which, as Dr. Banerjea points out, 'may flourish side by side with large ones, either as meeting supplementary demands or as producing goods complementary to those produced by the latter'. This explains how, even in the highly industrial countries of the West, small industries flourish side by side with industries organized on a large scale. The cottage industries afford a means of escape from the numerous evils of the factory system and urbanization. Further, in a predominantly agricultural country like India with 73 per cent. of her people depending for their means of subsistence on the small and uncertain income from agriculture, cottage industries provide the only source of supplementary income.

There is, however, no doubt that the increasing use of machinery and of machine-made goods has already displaced a large number of people from their hereditary industries. A certain amount of dislocation is inevitable in any scheme of industrialization. But this should not prove a permanent evil if sufficient care is taken to help and train the dislodged people to adopt other industries which have nothing to fear from the spread of factories and mass production.

The Present Position of Cottage Industries and Means for its Improvement

The existing conditions of cottage industries in India are far from desirable. The method of production is defective because tools and implements are mostly of a primitive type and technique is generally of a very low order. There is no suitable organization as regards finance ; and the existing arrangements for the supply of raw materials and the marketing of finished products are totally unsatisfactory. Here, also, the 'mahajan' plays a conspicuous part. He makes the necessary advances, supplies the raw materials and receives the produce when it is finished. Consequently the producer gets very little of the profit as he generally pays a higher price for the raw materials and gets a lower price for the finished products.

An improvement of the cottage industries in India requires, first of all, an improvement in the existing methods of production. This, again, calls for the introduction of up-to-date appliances which cannot be worked without a considerable amount of technical knowledge. In recent years technical education has made some progress in almost all the provinces and the Departments of Industries have done valuable work in exploring the possibilities of various industries suitable for each locality as well as in demonstrating the use of modern implements. But neither the existing facilities for technical education nor the arrangements so far made for familiarizing the rural people with the use of improved tools and machines are sufficient for the requirements of the country. A more rapid progress in both these directions is desirable. But the task of converting the vast multitude of rural people, steeped in ignorance and conservative by nature, to new ideas and modern methods is by no means an easy task. Here it is possible to utilize the services of the educated young men of the middle class by giving them the necessary technical training and by providing them with the necessary means for starting small industries in their respective localities. Besides providing a satisfactory means of familiarizing the rural people with modern appliances and methods such a scheme will, also, afford a considerable relief to the problem of middle-class unemployment.

In the next place, a satisfactory solution must be found for the problem of finance. The mere introduction of better appliances would scarcely confer any benefit unless the cultivator or the artisan is provided with the means of purchasing them as well as the raw materials. He must be freed from the grip of the 'mahajan'. For this no better agency than the co-operative societies can be recommended. Direct assistance from the State should, also, be made available in deserving cases. The State Aid to Industries Act passed in some of the provinces, including Bengal, should be copied in others as it is calculated to give a great stimulus to the development of cottage industries.

The deficiency in marketing organization can be made good by the establishment of co-operative sale societies and of Government emporia for the advertisement and sale of cottage wares.

THE COTTAGE INDUSTRIES OF BENGAL

Cotton Handloom Industry

Handloom cotton weaving is by far the most important cottage industry in India and is spread throughout the whole country with an average annual production of over 1,200 million yards. This industry is carried on to a varying extent in all the districts of Bengal and the total number of people supported by it is, according to Mr. Shaha, well over four hundred and fifty thousand. Dacca, the home of the defunct Muslin industry of world-wide fame, is still leading with her fine 'saries' ornamented with 'zories' and her famous 'zamdani' or figured 'saries'. Other fine fabrics produced in Bengal are the 'dhutis' and 'chaddar' of Santipur in Nadia, the 'Farasdanga' of Serampore and the coloured 'saries' of Tangail and Pabna, noted alike for their beauty and durability. The shirting pieces of Bankura, the fine 'chaddars' of Jessore, the coarse 'chaddars' of Bankura and Burdwan, the mosquito curtain chintz of Arambagh are very much in demand. 'Satranch' also of an inferior quality is made in Rangpur and other northern districts. Towels, 'gamchas' and 'lungis' are made almost everywhere. The majority of the weavers are Hindu Tantubayas, while there is a considerable number of 'Yogis', a low class Hindu, and 'Zolas' or Mahomedan weavers. Recently some young men of the 'Bhadralog' class have also taken to the handloom industry.

Though an old and prosperous industry of India, handloom weaving suffered considerably from the onslaught of foreign mill products. Since the beginning of the present century, however, the industry began to regain its position and made remarkable progress during and after the War. This was due partly to the high price of mill-made cloth and partly to propaganda in favour of 'Khadi'. The adoption of improved methods and modern appliances has also contributed to the recent progress in handloom weaving and it has been found, as for example in Madras, that in some varieties of textiles the cost of production on handlooms is less than that on power looms. Consequently, as Mr. Clow points out, 'while acknowledgment must be made of the stimulus given to the industry by the political movement in favour of hand-woven cloth, it appears to be the case that, at present at any rate, the handloom weaver can more than hold his own against the mills in simple economic competition'.

But at the same time it must, also, be noticed that the lower cost of production of hand-woven cloth is due to a large extent to the low standard of living of the weaver. He is satisfied with a very low rate of remuneration though his working hours are longer than those of factory workers. He also gets substantial help from other members of his family including women and children. It is no wonder, therefore, that his cost of production should be smaller ; but this is hardly desirable as it depends on conditions highly unfavourable from the point of view of economic progress. The adverse economic condition of the weavers is due to the lack of any organization as well as to the low technique of the industry. The weavers are mostly dependent on the 'mahajans' both for the supply of yarn and the disposal of finished goods. The use of fly shuttle looms is by no means universal. Measures should, therefore, be taken with a view to increasing the weavers' income by introducing improved looms on a wider scale and by providing them with adequate facilities for finance and marketing through the establishment of co-operative societies.

Hand spinning which also flourished side by side with handloom weaving had practically succumbed to the onslaught of mill-made yarn, and there is very little hope of its complete revival in spite of the 'charka' movement started by Mr. Gandhi.

Silk Industry

This also is an important home industry in Bengal, the Central Provinces, Bihar and Orissa, Assam, Mysore and Kashmir. The silk industry of Bengal was formerly in a highly prosperous condition, but towards the end of the nineteenth century it began to decline owing to the appearance of silkworm disease and to the competition of foreign silk. The industry consists of sericulture, reeling and weaving. Sericulture and reeling have been given up in most places and is practically confined to the district of Malda where mulberry cultivation and reeling are still done on an extensive scale. The existing methods of both sericulture and reeling are defective. Threads are scarcely uniform either in size or in strength and dyeing is highly unsatisfactory. Consequently the weavers prefer raw silk from countries like China, Japan and Italy which is superior in respect of finish and cheaper in price. Sericulture can be improved by improving the existing breeds of silkworms and the production and distribution of selected strains of seeds.

The chief weaving centres for mulberry silk are Bankura, Birbhum, Burdwan, Midnapore, Hooghly, Murshidabad, Malda and Bogra and those for 'tussor' silk are Bankura, Birbhum, Midnapore, Burdwan and Hooghly. The chief products are 'saries', 'dhuties', 'chaddars' and 'thans' for coating and shirting. Besides these there is a variety of mixed fabrics of cotton, silk and also 'tussor' woven in Chittagong and other places. The method of weaving is, however, defective and there is a conspicuous absence of modern appliances. Consequently the industry has been losing ground in competition with foreign silk from such countries as Japan, China, France and Italy, in spite of the duty on the import of manufactured silk. Further, there is no organization among the silk weavers, the majority of whom depend on the middleman for the supply of silk yarn and the disposal of finished products. The existing methods should be given up in favour of more modern ones and the primitive implements should be replaced by up-to-date appliances. The middleman should be eliminated and the industry should be organized by the introduction and expansion of co-operative finance and marketing as in the handloom cotton industry.

Brass and Bell-Metal Industry

Manufacture of brass and bell-metal (*Kansha*) is another indigenous rural industry in Bengal; but it is not, strictly speaking, a home industry because, as Mr. Shaha points out, 'in the majority of cases production is carried on in small workshops with the employment of hired labour'. The industry gives employment to about 40,000 people, mostly low class Hindus, and is located in several districts of Bengal, the most important centres being Murshidabad, Midnapore, Rajshahi, Bankura, Malda, Dacca and Mymensingh. The bell-metal wares of Khagra in Murshidabad are famous for their excellent finish and design. The methods of production are very crude and involve enormous physical strain. This industry, too, like many others, is dominated by the middleman 'mahajan'. The scope of the industry is, however, limited as the demand for bell-metal or brass articles is confined to the richer classes of society, the poorer people preferring either aluminium or earthen wares.

Pottery

The manufacture of earthen wares is another important home industry. It gives employment to about 200,000 'Kumbhakars' or 'Kumars' in the different districts of Bengal. This industry is in a fairly progressive condition because there is an extensive demand for its wares on account of their cheapness. In addition to that, very little capital is required by workers in this industry. Further, as the articles are produced for local consumption and sold in the local markets, it affords no scope for the appearance of the middleman. The pottery articles of Bengal are, however, of an inferior quality and glazed wares are produced at only one or two places. There is further scope for the development of this industry in the direction of the manufacture of china-clay articles.

Smithery

Another important home industry in Bengal is the manufacture of iron articles which is confined to the 'Karmakars', a fairly well-off class of Hindu society. The 'Karmakars' or blacksmiths make various kinds of agricultural implements such as plough-shares, sickles, 'daos', shoes for bullocks and horses and also other domestic articles of iron. The blacksmiths, too, like the potters, are independent of the middleman in respect of the supply of raw materials and funds as also in respect of the disposal of finished products.

Leather Industry

This is an ancient industry of Bengal comprising all the 'Muchis' and 'Charmakars' scattered throughout the whole province. They perform a certain amount of tanning and manufacture shoes, slippers and other leather articles. Tanning, however, is done on primitive lines and 'methods of finishing are practically unknown while those of dyeing are also very crude'. As regards the production of leather articles, the method of manufacture is defective and there is no organization among the workers. Consequently there has emerged in the industry the ubiquitous middleman who supplies the workers with leather and purchases the finished goods.

Bengal possesses an enormous supply of hides and skins as well as tanning materials. Hence there is great scope for the tanning industry if only the village 'Charmakars' can be trained in improved methods. The manufacture of leather articles can also be improved by training through demonstration in up-to-date methods and the difficulty with regard to the supply of leather and the marketing of finished goods can be successfully solved by starting co-operative societies among the leather workers.

Cane and Bamboo Work

This includes the manufacture of baskets, bags, mats, chairs, tables, and several other products. It is spread over the whole of Bengal and is an important industry in the district of Sylhet in Assam. In Bengal bamboo-mats or 'chatais' are manufactured chiefly in Tipperah, Chittagong and the Hill Tracts. High-class cane and bamboo articles such as baskets, bags, chairs, etc., are made in Tipperah while their ordinary varieties are made in certain parts of Dacca, Faridpur and Birbhum. Mats from 'pati' grass are manufactured in Midnapore, Burdwan, Bankura and the 24-Parganas; and those of a better quality known as 'seetal pati' are made from a kind of reed called 'mutra' in the districts of Chittagong, Noakhali, Tipperah, Dacca and Faridpur.

This industry, however, is not very remunerative and there is scarcely any organization among the workers. The bamboo-mat-making industry is entirely in the hands of middlemen who supply the workers with the necessary capital and receive the finished product, usually at a very low rate. The cane and bamboo industry might be placed on a better footing by extending facilities for finance and marketing through the spread of co-operative societies and by training the workers in up-to-date designs.

Other cottage industries besides those mentioned above are rice-husking carried on mainly by women by means of the indigenous wooden implement 'dhenki', carpentry, oil pressing, the manufacture of German silver and copper wares, gold and silver smithery, the conch-shell industry of Dacca, the mother-of-pearl industry of Dacca, Tipperah and Noakhali and the horn industry of Dacca and Backergunj. Some of these industries are in a fairly prosperous condition while others offer ample scope for improvement by the introduction of more modern methods and up-to-date appliances.

CHAPTER XIII

TRADE

Growth of Indian Trade

There are evidences of trade connection both by sea and by land between India and other countries since the earliest times. The chief articles of export were textiles, ivory, precious stones, spices and perfumery ; while the imports consisted mainly of precious metals, brass, copper and tin. As a result of the establishment of trade connections between India and countries beyond her borders during the Moghul period the external trade by land greatly improved ; and the internal trade of the country also considerably increased with the improvement in the means of communication. But the volume of such trade, whether external or internal, must have been insignificant in comparison with the trade in its modern dimensions. For apart from the difficulties of transport there were the insecurity of journey and the various exactions, such as transit duties on the movement of goods. Consequently the self-sufficiency of the village was the distinctive feature of Indian economic life in earlier times.

The discovery of the route round the Cape of Good Hope led to a closer contact between the East and the West, and the opening up of the Suez Canal in 1869 marks the beginning of a new era in the history of India's external trade. Exports and imports steadily increased and were further stimulated by improvement in the means of internal communication, particularly the extension of railways. The development of transport facilities and the establishment of peace and security led also to a steady increase in the country's internal trade, and broke the isolated character of the Indian villages.

External Trade of India

Judged by the value of her external trade India is surpassed by only five other countries, the United States, the United Kingdom, Germany, France, and Canada. The total value of her sea-borne trade during 1930-31 was Rs. 388·7 crores against Rs. 556·9 crores in 1929-30 and Rs. 589·4 crores in 1928-29. The decline in trade since 1929-30 is due to the economic depression of recent years. The value of exports exceeds the value of imports and the balance of trade is generally in favour of India.

Exports

The exports from India are remarkable alike for their far-flung destination and their variety. But it is to be noted that the exports have now changed in their character, for whereas in earlier times Indian exports consisted mainly of manufactured products, nowadays they consist chiefly of raw materials. About 73 per cent. of exports from this country are made up of raw materials; but there are indications that as a result of gradual industrialization the exports of manufactured goods will increase as they have increased considerably in recent years.

The exports from India go practically to every country in the world, the biggest single customer being the United Kingdom. Next come the United States, Japan and Germany, closely following one another. The principal items on the export side are jute and cotton, both raw and manufactured. There has been a big drop in the export of both those commodities since 1929-30 owing to the economic depression. Another conspicuous item of export is tea, but this, too, has considerably declined owing to the loss of the Russian market as well as to the competition of tea exported from Java. Other important items are food-grains, oil-seeds, and hides and skins.

Raw jute is exported to Germany, the United Kingdom, France, the United States, Italy and Belgium, while jute manufactures go mainly to the United States, Argentine and Australia. The biggest customer of Indian raw cotton is Japan. Considerable quantities also go to China, Italy, Belgium, Germany and the United Kingdom. The biggest customer of manufactured cotton was China, but the Chinese market has recently been captured by Japan. The principal buyer of tea is the United Kingdom, and the trade with Russia, once a valuable market of Indian tea, is likely to revive as a result of certain arrangements which are just now on foot. Among food-grains the export of wheat has practically ceased. Rice, mainly Burma rice, and other food-grains, go to Ceylon, Germany, the Straits Settlements, the United Kingdom and Persia. Oil-seeds are exported mainly to France, Germany, Italy, the United Kingdom, and the Netherlands. The best customer of hides and skins is the United Kingdom, followed by the United States and Germany.

Imports

Imports into India are characterized by a preponderance of manufactured goods which account for about 73 per cent. of the total imports. The imports of raw materials, however, have been showing a steady increase owing to the stimulus given to the growth and development of industries in India. In the import trade of India the United Kingdom still predominates though her position has, of late, been seriously weakened owing to the formidable competition of Japan, the United States and Germany.

The principal items on the import side are manufactured cotton and sugar, both of which have immensely decreased owing mainly to the economic depression. The other important items are machinery, mineral oil, vehicles, and precious metals. Manufactured cotton is imported mainly from the United Kingdom though she has been rapidly losing ground to Japan. Sugar is supplied mainly by Java though a considerable quantity of beet sugar also comes from Russia and other continental countries. Machinery is supplied chiefly by the United Kingdom, the United States being her keen rival. Formerly the United States had the lion's share in the Indian import of mineral oils, but her contribution has recently decreased, the contributions of Russia and Persia increasing.

There is a considerable amount of external trade across the land frontiers of India for which no reliable statistics are available. It is calculated to be about six per cent. of the total trade.

Internal Trade

India is one of the largest countries in the world enjoying internal free trade. The internal trade of the country consists of (1) coastal trade and (2) inland trade.

(1) *Coastal Trade*

A vast amount of trade is carried on between the several ports on the extensive coastal line of India. The total value of the coasting trade for 1927-28 was estimated at about Rs. 220 crores.

(2) *Inland Trade*

The establishment of peace and security and the improvement and extension of the means of communication, especially railways, have led to the growth of an enormous volume of trade between the different parts of the country. The inland trade of the country consists mainly in carrying produce of one part of the country to another. The importance of domestic trade lies in the fact that the bulk of India's agricultural and manufactured products is utilized for internal consumption, a small proportion only being available for export. The volume of internal trade is considerably greater than the volume of external trade but no reliable statistics for the former are at present available. Considering the size of the population, the variety of the country's products and the tendency towards industrialization, there seems to be unlimited scope for the further development of inland trade with the improvement of the various means of transport, particularly roads and waterways.

CHAPTER XIV

PUBLIC FINANCE IN INDIA

Taxation in India

Originally the sole taxing authority in India was the Central Government. The power of taxation was, however, gradually delegated to the local and provincial authorities. The Reforms of 1919 led to a separation of the Central budget from the Provincial budgets and consequently to a division of the sources of revenue between the Central Government and the Provincial Governments. The provinces had thus been advanced to a substantial measure of fiscal independence except that they were required to make some annual contribution to the Central Government. Since 1927-28, however, the provinces have been relieved of the payment of contributions. The taxing authorities in India, at the present time, are, therefore, (1) the Central Government, (2) the Provincial Governments and (3) the various Local Bodies, such as District Boards, Municipalities and Port Trusts.

1. CENTRAL FINANCE

Chief Sources of Revenue of the Central Government

The biggest single taxing authority in India is the Central Government. The revenues of the Central Government are, however, not derived from taxation alone. The following budget figures for the year 1929-30 taken from the Simon Commission's Report will indicate the main sources of revenue and the main heads of expenditure of the Central Government.

REVENUE	In crores of rupees	EXPENDITURE	In crores of rupees
Customs	51·22	Defence (net)	55·10
Income-tax	16·60	Debt charges (net)	12·14
Salt	6·35	Civil Administration	12·67
Opium (net)	2·35	Loss on Posts and Telegraphs and Irrigation	·33
Railway (net)	6·25		
Currency and Mint	3·06	Other expenditure (including pensions and cost of revenue collection)	11·15
Other receipts	5·56		
Total	91·39	Total	91·39

Though the bulk of the revenues, as the above figures will show, are derived from taxation such as customs, income-tax and salt-tax, yet the revenues derived from commercial undertakings, such as railways[1] or from other sources, such as currency and mint, interest receipts, etc., are by no means inconsiderable.

Customs

'Customs' are indirect taxes levied on the export and import of commodities. A list of such duties is called the 'tariff'. Customs in India consist of duties on both exported and imported articles. A few articles only are liable to export duty: these are—jute and jute manufactures, raw hides and skins, and rice.

The tariff on the import side provides an interesting study. At one extreme are goods such as raw wool, manures, precious stones, agricultural and dairying implements, books, gold, etc., which are admitted free of duty. At the other extreme, there are goods, such as iron and steel products, paper, cotton piece-goods, etc., which are subjected to protective duties. But between these two extremes there is a wide variety of articles subjected to duties of a mainly revenue character. They range, to cite a few examples, from 2½ per cent. *ad valorem* on vinegar, 10 per cent. on machinery, 20 per cent. on fruits and vegetables, 25 per cent. on rough sugar, 30 per cent. on spices, 40 per cent. on watches and confectionery, to 90 per cent. on cigars.[2] The import tariff in India is thus, as Lord Meston points out, 'a compromise between a revenue tariff, a punitive tariff on luxuries, and a protective tariff'. Recently the principle of Imperial Preference has been given effect to in respect of two protected articles, viz. steel products and cotton piece-goods.

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[1] The contribution made by railways to the general revenues has been stopped since 1931-32 because of the severe losses of the railways on account of the economic depression.

[2] From 30th September 1931, a surcharge of 25 per cent. of the existing rates has been imposed on all customs import duties, including surcharges imposed by the Finance Act of March 1931, except duties on raw cotton, machinery and dyes.

The Salt Tax

The salt duty is another indirect tax which falls upon rich and poor alike. It is a highly unpopular tax, though it is one of the ancient taxes of India. A tax on salt, moreover, exists in several other countries, and in a country like India it is the only tax whereby the masses can be reached. Its burden per head of population in India is about 3½ annas per year. This is one of the principal sources of revenue of the Government of India. The Government control the supply of salt by manufacturing it themselves or by taxing private manufacture and imports. Salt revenue is thus derived from three sources, namely, (1) excise duty on Indian salt, (2) customs duty on imported salt, and (3) sale of Government salt. The scale of duty on salt has varied between Rs. 2-8 and Re. 1 per maund. The present duty stands at Re. 1-4 per maund plus As. 4-6 if manufactured out of India, with a surcharge of 25 per cent. on both these rates. Seven-eighths of the extra duty on foreign salt imposed since 1931 is made over to the Provinces according to their consumption of foreign salt.

The Income-Tax

This is a direct tax payable on annual incomes of both individuals and companies. In the case of individuals, however, a minimum is always fixed and incomes below this minimum are exempted. The present minimum has been fixed at Rs. 1,000 a year. The tax is charged on a graduated scale from 4 pies to 26 pies in the rupee with a surcharge of 25 per cent. on all except the lowest rate. In the case of companies or registered firms the maximum rate is charged and no exemption is allowed in respect of their total annual income. Agricultural incomes are at present exempt from the payment of income-tax.

The Super-Tax

The super-tax was introduced in 1917 as a result of the increasing pressure on finances. This tax is payable in addition to the income-tax. It is levied on a graduated and ascending scale on so much of the annual income as is in excess of Rs. 30,000, except for Hindu individual families and companies which are allowed a deduction of Rs. 75,000 and Rs. 50,000 respectively. The rate varies from 9 pies to 6 annas 3 pies on a graduated scale except in the case of companies, which are taxed at a flat rate of 1 anna. A surcharge of 25 per cent. has been added to all existing rates.

Opium

Opium, which is now produced only at Ghazipur in the United Provinces, is a Government monopoly so far as British India is concerned. It is also produced in certain Native States, but its entry into India is subject to an import duty. So the opium revenue of the Government of India is derived from (1) the sale of Government opium and (2) the import duty on opium from Native States. As a result of the agreement with China and of the adoption of the procedure of sale by certificate obtained from the Government of the importing country, the export of opium has been considerably restricted and will entirely cease by December 1935 except for medical and scientific purposes. Home consumption also has been reduced considerably and will be further reduced in pursuance of the present policy of the Government. So opium as a source of revenue will be relegated to the position of an insignificant item.

Central revenue is also derived from Railway profits, profits of Posts and Telegraphs[1] and several other minor sources. The total revenue derived from taxation alone during 1929-30 has been estimated by Prof. Shirras at about 79 crores, the burden per head of population being about 3·1 rupees.

Chief Heads of Expenditure of the Central Government

The chief heads of expenditure of the Central Government are (1) Defence (Army), (2) Debt charges, (3) Civil Administration, and (4) Collection of Revenue.

Defence

The striking feature on the expenditure side is the high percentage of the expenditure on the Army. The figure under this head is over 60 per cent. of the total central revenues, and over 30 per cent. of the total central and provincial revenues taken together. India, however, spends very little for the Navy and her total expenditure for defence is certainly less than the total expenditure for defence in some other countries. But it is pointed out that India spends a larger amount under this head than any of the self-governing Dominions and the percentage of her expenditure on defence to total expenditure is higher than in any other country. Hence this item of the central expenditure has been subjected to all sorts of criticism. It must, however, be noted that the above comparison is misleading because the military circumstances of the Dominions are totally different from those of India, that is, they are not threatened by military neighbours. Further, the percentage of army expenditure, an indispensable necessity in the case of India, is so high not because too much is spent on defence but because too little is spent on other things. There is possibly some room for economy in the military budget and the cost of military services would, it is expected, be reduced with the progressive Indianization of the Army and the establishment of an Indian Sandhurst.[1] It is, however, essential that the zeal for economy should not blind us to the need for efficiency, and also to the vast extent of the country, the size of the population and the nature of her external and internal needs.

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[1] Nothing at present is added by the railways and the posts and telegraphs, both of which have been incurring losses.

Debt Charges

The next important item of expenditure is debt charges, including both the interest on, and the reduction of, the various obligations of the Government of India. The total interest-bearing obligations stood on the 31st March 1931 at about Rs. 1,160 crores, of which about 642 crores was contracted in India and the rest, viz. 518 crores, in England. Hence a considerable amount under this head goes to England and is regarded as a 'drain' on the country's resources. It should be noted, however, that about 80 per cent. of the national debt is for productive purposes and leads to an increase of the national income. So the interest paid on this portion of the debt to investors, whether in India or in England, can hardly be regarded as burdensome. Moreover, the rate of interest is low on account of the connection between India and England forming a good security.

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[1] Military expenditure has been reduced from Rs. 51·90 crores in 1931-32 to Rs. 46·65 crores for 1932-33. Thus a saving of Rs. 5¼ crores has been effected, but the reduction is as yet on a temporary basis.

The unproductive portion of the debt is, however, a 'dead weight debt'. But even in this respect India is better off than many other countries and the payment she makes on this account does not constitute a formidable burden. It is, nevertheless, desirable that such debts should be kept within the narrowest possible limits and should be contracted only in exceptional cases when some heavy unexpected outlay cannot be met from the ordinary revenues or by increased taxation.

Civil Administration

The expenditure under this head arises mainly in connection with the Government of India's direct administration of the minor provinces. It includes, further, the expenses of the Foreign and Political Department, and also those for research, meteorology and other services included in the list of central subjects.

The expenditure under this head has enormously increased in recent years, especially on account of the Reforms. It is held by many public men that the Indian administration is one of the costliest in the world and the scale of salaries and allowances given to officers in the higher grades is excessive. It is further maintained that a large part of the increase has been due to 'an unnecessary multiplication of offices and departments'. Both these contentions deserve consideration, especially in view of the fall in prices. The salaries in the higher grades can be brought down as Indianization proceeds gradually and a considerable reduction in expenditure under this head is possible if rigid economy is observed.[1] It must be remembered, however, that democracy is not a cheap form of government.

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[1] Civil expenditure estimates for 1932-33 have been reduced by Rs. 2·50 crores as compared with the expenditure of 1931-32.

Collection of Revenue

Another important head is the cost of collection of revenue. Though there is room for economy even under this head, yet it constitutes, on the whole, a necessary item of expenditure.

2. PROVINCIAL FINANCE

Chief Sources of Revenues of the Provincial Governments

The figures, taken from the Report of the Simon Commission, on the next page, will indicate the chief sources of revenues and the main heads of expenditure of the Provincial Governments.

Provincial Revenue and Expenditure in 1929-30 (*Budget Estimate in Crores of Rupees*)

	Madras	Bombay	Bengal	United Provinces	Punjab	Burma	Bihar and Orissa	Central Provinces	Assam	Total
Population and Area :—										
Population in millions	42·3	19·3	46·7	45·4	20·7	13·2	34·0	13·9	7·6	243·1
Area in thousands of sq. miles ..	142·3	123·6	76·8	106·3	99·8	233·7	83·1	99·9	53·0	1018·5
REVENUE										
Land Revenue	6·21	5·12	3·24	7·10	2·82	5·54	1·76	2·45	1·24	35·48
Excise	5·54	3·89	2·25	1·37	1·30	1·31	1·91	1·28	·59	19·44
Stamps	2·56	1·77	4·22	1·79	1·21	·71	1·12	·75	·22	14·35
Irrigation (net)[1]	·89	·70	·15	1·09	4·50	·22	·18	—·02	..	7·71
Forest (gross)	·59	·73	·33	·59	·35	1·76	·11	·58	·40	5·44
Other sources	1·77	3·51	1·66	1·15	2·36	2·01	·77	·52	·39	14·14
Total Revenue ..	17·56	15·72	11·85	13·09	12·54	11·55	5·85	5·56	2·84	96·56
EXPENDITURE										
Reserved										
Land Revenue and General Administration	2·78	2·95	1·86	2·37	1·57	1·68	1·02	1·03	·50	15·76
Police	2·01	1·79	2·17	1·71	1·22	1·61	·85	·62	·30	12·28
Jails and Justice	1·33	1·00	1·49	1·14	1·07	1·05	·62	·44	·17	8·31
Other reserved expenditure (including debt-charges, pensions, etc.)	3·95	4·58	2·37	3·29	2·20	1·83	1·15	1·06	1·18	21·61
Total ..	10·07	10·32	7·89	8·51	6·06	6·17	3·64	3·15	2·15	57·96
Transferred										
Education	2·57	2·04	1·33	1·91	1·67	1·27	·89	·57	·32	12·57
Medical relief and public health ..	1·41	·91	·98	·66	·81	·65	·52	·22	·22	6·38
Civil Works	2·13	1·30	·84	·49	1·66	1·90	·53	·87	·07[2]	9·79
Other transferred expenditure	1·53	1·43	·89	·82	1·29	1·39	·54	·46	·22	8·57
Total ..	7·64	5·68	4·04	3·88	5·43	5·21	2·48	2·12	·83	37·31
Total Expenditure ..	17·71	16·00	11·93	12·39	11·49	11·38	6·12	5·27	2·98	95·27

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[1] Interest on capital outlay has not been deducted.

[2] 'Public Works' is a reserved subject in Assam.

As the foregoing figures will show, the main heads of revenues of the Provincial Governments are Land Revenue, Excise, Stamps, Irrigation and Forest. But their yield is not uniform in all the provinces. Thus land revenue, which is the chief source in Madras, Bombay, the United Provinces, Burma, the Central Provinces and Assam, occupies relatively a minor position in Bengal because of the permanent settlement. Stamps are a fruitful source in Bengal but are not so important in other provinces. Irrigation gives the highest yield in the Punjab, but it is a minor source in the other provinces.

Land Revenue

Land revenue is a direct tax. It is levied on property, rather than on persons. In permanently settled tracts, the revenue has been perpetually fixed or settled with proprietors known as zemindars. In temporarily settled tracts the revenue is determined for a fixed period which varies from place to place and fresh settlements are made on the expiry of the existing ones. It is sometimes held that the land revenue is an excessively burdensome and rigid tax. The first contention is groundless as the burden of land tax under British rule is, on the whole, comparatively lighter than what it was during the Moghul period. As regards the second contention, it must be admitted that there is a certain degree of rigidity about the existing methods of assessment. A greater flexibility is required in order to adapt the system of assessment to changes in price and in the standards of living of the people.

Excise

Excise, says Taussig, 'is an internal tax imposed at some stage in the production of a commodity'. It is an indirect tax. The excise revenue of the provinces is derived from the sale and manufacture of liquors, hemp and other intoxicants and from the fees for sale licences of all these things and opium. It is a tax upon luxury in the case of those who indulge in drink and drugs in moderation and an impost upon vice for those who use the noxious things to excess. The excise systems and rates of duty vary from province to province. In recent years the excise revenue has been stationary or even diminishing in some of the provinces and will fall further as a result of the restrictive policy of the Government.

There is another class of excise duties levied solely with the object of creating revenue. The duty imposed on salt manufactured in India belongs to this class. Formerly the most important excise of this kind was the duty imposed on cotton cloth made in India. This duty was finally abolished in 1926. There are also excise duties on motor spirit and kerosene manufactured within the country. The revenue derived from this form of excise belongs to the Central Government.

Stamps

The stamp revenue is derived from judicial or court-fee stamp and non-judicial or revenue stamps. The judicial stamp revenue may be regarded as a payment for services rendered by costly judicial establishments rather than as a tax in the proper sense of the term.

Forests and Irrigation

Forest revenue is derived from the sale of timber and other forest produce, from grazing fees, and from licence fees for permission to cut bamboo, wood, etc.

The revenue under irrigation is derived from the charge made for taking water from the irrigation works constructed by Government.

Revenues derived from these two sources, as the revenue derived from registration, may be regarded as payments made for either goods or services which persons making the payments are entitled to get in return. They are, therefore, more akin to price than to tax in its true sense.

The total revenue derived from provincial taxation in all the provinces during the year 1929-30 worked up, according to Prof. Shirras, to Rs. 71 crores with an estimated burden of Rs. 2·8 per head of population. This, however, gives an idea of an average for the whole of British India. The actual burden differs considerably in different provinces.

Chief Heads of Expenditure of the Provincial Governments

Expenditure in the provinces is divided into two heads, corresponding to the two halves of the Government. On the 'reserved' side the principal items are General Administration, Police, and Jails and Justice. On the 'transferred' side the chief items are Education, Medical Relief and Public Health, Civil Works, and Agriculture and Industries.

It is evident from the figures we have cited, that there is a disparity between the total expenditure on the reserved side and the total expenditure on the transferred side. Further, the total amount spent for the national departments in all the provinces in India is less than 70 per cent. of what is spent for the Army. It must, however, be noted that expenditure on the transferred side has been rapidly increasing in recent years and will, it is hoped, increase further so as to overtake, and possibly even exceed, the amount spent on the reserved side.

EXPENDITURE ON THE RESERVED SIDE

General Administration

This includes the headquarters establishment of the different provinces, the revenue establishment and a part of the cost of the magistracy. The expenditure under this head has increased enormously with the introduction of the Reforms. It is maintained that the administration has become top-heavy and that there is room for economy under this head.

Police

The provincial expenditure on Police, like the central expenditure on the Army, has been subjected to a lot of criticism. There is no doubt that under existing circumstances the expenditure under this head is proportionately high. But it must not be forgotten that the most essential condition of the prosperity and well-being of a people is a well-ordered State, and from that point of view an effective police force is an indispensable necessity. There may be room for economy here and there, but the internal condition of the country is hardly reconcilable to any proposal for a considerable reduction in police expenditure.

Jails and Justice

The expenditure under this head is as necessary as that under the former and there is no possibility of a substantial reduction under existing circumstances.

EXPENDITURE ON THE TRANSFERRED SIDE

Education

The expenditure under this head has considerably increased in recent years. Yet it is hardly adequate for the existing needs of the people. It is highly desirable that the grant for education should increase as far as the funds permit.

Medical Relief and Public Health

A remarkable improvement in the sanitary conditions of the rural areas is already noticeable. Nevertheless, the allotment under this head falls short of the total requirements of the country. A judicious application of a more liberal grant for this item will undoubtedly lead to the growth of a more healthy peasantry.

Civil Works

Civil works is a transferred subject in all the provinces except Assam. It is impossible to over-estimate the utility of roads and bridges from the point of view of rural economy and all that is spent under this head goes to stimulate the production of wealth.

Agriculture and Industries

The grant for agriculture and industries, though it has increased lately, is yet insufficient for the country's needs. It is hoped that with various development programmes before them each province will spare more funds for expenditure under this head.

3. LOCAL FINANCE

Besides the Central and Provincial Governments there are the various Local Authorities which may also raise money from taxes or rates. They are the Municipalities, the Rural Boards, and the Port Trusts.

Municipal Finance

There were in 1928-29 about 780 municipal bodies operating in the urban areas, with an aggregate income of about 17 crores. Their methods of local taxation are manifold, including octroi duties, terminal taxes, taxes on fixed property, professions and vehicles, and also special charges for services such as water supply, light supply and facilities for education. Their income is, often, supplemented by grants from the Government.

The Municipal funds are spent for lighting and water supply and for the maintenance of roads, parks, markets, educational institutions, drainage, conservancy, hospitals and dispensaries.

Rural Finance

The main source of revenue of the rural authorities of which there were, in 1928-29, about 5,500 of all kinds, with an estimated income of about 16 crores, is a tax or cess on land payable in addition to land revenue. This is supplemented by tolls on ferries and bridges, cattle-pound receipts, etc. A very large proportion of the revenues of these bodies, however, consists of contributions from the provincial Governments either as annual grants-in-aid or capital contribution for specific works of construction.

They spend money chiefly for roads and bridges, hospitals, water supply, primary education, and rest houses.

Finance of the Port Trusts

The Port Trusts for the chief harbours of India have an income of about 8 crores. They derive their revenues from dues on shipping and goods and other harbour charges. They have, also, the power of raising loans. They spend their income for the provision of docks, jetties, lights, warehouses, and other needs of shipping and trade.

The total amount raised by local taxation during the year 1929-30 has been estimated by Prof. Shirras at about 17 crores with a burden of Rs. 0·7 per head of population. The total burden of taxation from all sources—Central, Provincial as well as Local—was, therefore, for 1929-30 Rs. 6·6 per head of population in India.

APPENDIX A

MAIN HEADS OF REVENUE AND EXPENDITURE OF THE PROVINCE OF BENGAL

(*Budget Estimate for* 1932-33 *in lakhs of rupees*)

REVENUE

	Budget Estimate 1932-33	Revised Estimate 1931-32	Actuals 1930-31
Land Revenue	315	310	308
Excise	168	158	180
Stamps (Judicial and Non-judicial)	295	277	312
Forest	18	16	23
Registration	20	19	23
Other sources	136	127	120
Total	952	907	966

EXPENDITURE

	Budget Estimate 1932-33	Revised Estimate 1931-32	Actuals 1930-31
General Administration	124	131	132
Administration of Justice	100	106	109
Jails and Convict Settlements	50	37	44
Police	224	227	224
Civil Works	86	88	102
Education (Reserved and Transferred)	131	136	143
Medical	54	55	56
Public Health	39	40	37
Agriculture	25	26	26
Industries	11	12	12
Other Items	268	255	255
Total	1,112	1,113	1,140

It will be seen that the expenditure in Bengal as outlined in the above figures far exceeds the receipts. The difference in respect of the year 1930-31 was, however, substantially made up by the opening balance left at the end of the preceding year. The deficit of about 206 lakhs for 1931-32 and the estimated deficit of about 160 lakhs for 1932-33 have to be met by loans from the Government of India. The financial position of the province is, therefore, far from satisfactory. It is not likely to improve unless and until Bengal is accorded fair treatment in respect of the export duty on jute and is given a reasonable share of the income-tax and possibly also of customs.

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